No. [redacted] 1664

No. 15249

Office - Supreme Court, U.S.
FILED
JUN 5 1957
JOHN T. FEY, Clerk

United States
Court of Appeals
for the Ninth Circuit

C. S. JOHNSON COMPANY, a Corporation,

Appellant.

vs.

MERLE W. STROMBERG, Doing Business as California Batching Equipment Co.,

Appellee.

Transcript of Record

In Two Volumes

Volume I
(Pages 1 to 310)

Appeal from the United States District Court for the Southern District of California, Central Division.

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DEC - 3 1956
PAUL P. O'BRIEN, CLERK

Phillips & Van Orden Co., 870 Brannan Street, San Francisco, Calif.—11-2-56

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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In the United States District Court, Southern District of California, Central Division

Civil Action No. 17121-PH

C. S. JOHNSON COMPANY,

Plaintiff,

vs.

MERLE W. STROMBERG, dba CALIFORNIA BATCHING EQUIPMENT CO., DOE I, DOE II and DOE III,

Defendants.

COMPLAINT FOR PATENT INFRINGEMENT AND UNFAIR COMPETITION

For a First Claim Against Defendants, Plaintiff Alleges as Follows:

I.

This action arises under the patent laws of the United States of America and this Court has jurisdiction thereof under 28 U.S.C. 1338(a).

II.

Plaintiff, C. S. Johnson Company, is a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, and has its principal place of business in Champaign, County of Champaign, and State of Illinois.

III.

Defendant Merle W. Stromberg is an individual residing in Los Angeles County, doing business

under the fictitious name and style of California Batching Equipment Co., and having regular [2*] and established places of business both in Los Angeles County and in Orange County, all in the Southern Judicial District of California, Central Division.

IV.

Doe I, Doe II and Doe III are sued herein under fictitious names, and leave of Court will be requested to substitute their true names when the same are ascertained.

V.

On November 29, 1938, United States Patent No. 2,138,172 for a Batching Apparatus was duly and legally issued to plaintiff as the assignee of Charles S. Johnson, the inventor of the subject matter of said patent. Plaintiff has been since the issuance of said patent, and now is, the owner of the entire right, title and interest in and to said patent and of all rights to sue for past and present infringements thereof.

VI.

Said patent and the inventions covered thereby are of great value to plaintiff, have been widely advertised at great expense to plaintiff, and have been well and favorably received by the trade for many years, a very substantial volume of the patented apparatus having been manufactured and sold by plaintiff throughout the United States. Said patent has been respected and infringement thereof avoided

*Page numbering appearing at foot of page of original Reporter's Transcript of Record.

by all the major competitors of plaintiff, giving to plaintiff an important commercial advantage for reasons including the fact that concentric aggregate-cement batching apparatus covered by the patent is superior to competitive structures and a large proportion of prospective purchasers prefer to buy an aggregate-cement batching plant in which the patented features are present.

VII.

The defendants have jointly and severally, wilfully and wantonly infringed and now are infringing, said patent by making, [3] using and selling and causing to be made, used and sold, in the Southern Judicial District of California, aggregate-cement batchers embodying the inventions disclosed and claimed in said patent, and threaten to and will continue to infringe said patent, thereby causing plaintiff great and irreparable damage, unless enjoined by this Court from continuing their acts of infringement. Upon information and belief, infringing structures made and sold by defendants are now in use at the places of business of Pearman & Son Company in Gardena, California, Stanton Ready Mix in Stanton, California, Jones Concrete Company in Santa Monica, California, and Culver Ready Mix Company in Culver City, California, and at other places unknown to plaintiff at this time.

VIII.

Plaintiff has placed the required statutory notice on all aggregate-cement batchers manufactured and sold by it under said patent, and has given written

notice to defendant Stromberg of the said infringements.

For a Second and Separate Claim Against Defendants, Plaintiff Alleges as Follows:

IX.

This action is for unfair competition and this Court has jurisdiction thereof under 28 U.S.C. 1338(b) and under 15 U.S.C. 1121, 1126(h) and 1126(i). Additionally, this Court has jurisdiction since plaintiff and defendants are citizens of different states and the matter in controversy exceeds, exclusive of interest and costs, the sum of $3,000.00.

X.

Plaintiff repleads and incorporates herein by reference paragraphs II to VII of its first claim hereinbefore set forth.

XI.

Plaintiff is engaged in the business of manufacturing and and selling in commerce which may be lawfully regulated by Congress, concentric aggregate-cement batching plants of recognized good quality incorporating the inventions disclosed and claimed in United States Patent 2,138,172. Said plants manufactured by plaintiff have a distinctive appearance, construction, design and mode of operation, and have been widely advertised and sold throughout the United States, and in this connection said appearance, construction, and design have acquired a secondary meaning in the trade, indicating plaintiff as the source of said plants. Said plants have become widely known as Johnson con-

centric plants and as Johnson-type plants and by virtue of plaintiff's good reputation in the field, and its good will created through the making and selling of said good quality plants, prospective purchasers throughout the United States have come to associate such concentric aggregate-cement batching plants with plaintiff and to believe that such plants are made by plaintiff and are of uniformly good quality.

XII.

Upon information and belief, defendants, well knowing that many prospective purchasers prefer to purchase and insist upon an aggregate-cement batching plant incorporating the distinctive features of the Johnson concentric plant and of the high quality produced by plaintiff, have jointly and severally represented to said prospective purchasers that they could and had the right to make and sell Johnson concentric or Johnson-type plants, and defendants have made and sold such plants, thereby misleading said prospective purchasers and wilfully and wantonly appropriating to themselves the good will which plaintiff has built up in said Johnson concentric plants.

XIII.

Upon information and belief, prospective purchasers have been deceived by the misrepresentations of defendants alleged in [5] paragraph XII and have been caused to believe that defendants are making and selling Johnson-type plants with the approval and consent of plaintiff, and that plants made and sold by defendants have the same high

quality characteristic of Johnson plants, whereas in fact defendants have no approval or consent from plaintiff, and the plants constructed and sold by defendants are inferior in construction, performance and quality to Johnson plants.

XIV.

Pursuant to their plan of appropriating to themselves the good will built up by plaintiff in its Johnson concentric plant, and of deceiving prospective purchasers into the belief that defendants are operating with the approval and consent of plaintiff, defendants have made substantial copies of plaintiff's concentric plants with respect to the design, construction, and appearance of many essential features, and it is alleged upon information and belief that defendants have in this connection employed, without approval or consent from plaintiff, plaintiff's own blueprints and drawings.

XV.

The acts of unfair competition hereinabove complained of have resulted in confusion, mistake, and deception of purchasers, and others in the trade, and have enabled defendants to appropriate unfairly to themselves the good will of plaintiff and to sell their plants as Johnson-type plants manufactured and sold with the approval and consent of plaintiff, whereby the inferior quality, construction, and operation of said plants made and sold by defendants have been attributed to plaintiff, to the great injury of plaintiff's reputation and good will. Further

more, the inferior quality and decrease in efficiency of operation of concentric aggregate-cement batching plants made and sold by defendants, resulting from defendant's defective and inferior construction, have in error been attributed by purchasers and others to the features characterizing the Johnson plant, thereby lessening and tending to lessen the good will built up by plaintiff in Johnson plants and decreasing and tending to decrease plaintiff's available market.

XVI.

By reason of said acts of defendants in unfair competition with plaintiff, defendants have been and are being unjustly enriched, and plaintiff has been and is being irreparably damaged and will continue to be so damaged unless defendants are enjoined by this Court from continuing their said acts of unfair competition. By reason of said acts of unfair competition aforesaid, plaintiff has been damaged in excess of Three Thousand Dollars ($3,000.00) and is continuing to be damaged, and an accounting is necessary to ascertain the exact amount of such damage.

Wherefore, plaintiff prays for a preliminary and final injunction against further infringement of said Patent 2,138,172 and against further acts of unfair competition, by defendants, their agents, employees, attorneys, and those controlled by or associated or in active concert with them; for an accounting of profits and damages for infringement of said patent and by reason of said acts of unfair competition;

that the amount of said damages be trebled; for its costs and attorneys' fees incurred in this action; and for such other and further relief as this Court shall deem just and proper.

Dated August 25, 1954.

WILLIAM DOUGLAS SELLERS and

RICHARD L. GAUSEWITZ,

By /s/ W. D. SELLERS,

Attorneys for Plaintiff.

[Endorsed]: Filed August 25, 1954. [7]

[Title of District Court and Cause.]

ANSWER

Defendant Merle W. Stromberg answering the Complaint, alleges as follows:

I.

Answering paragraph I of the Complaint, Defendant admits that this action arises under the patent laws of the United States and that this Court has jurisdiction thereof.

II.

Defendant is without knowledge or information sufficient to form a belief as to the allegations of paragraph II of the Complaint, and therefore denies same.

III.

Defendant admits the allegations of paragraph III of the Complaint.

IV.

No answer is required to paragraph IV of the Complaint.

V.

Other than having seen a copy of the Johnson patent No. 2,138,172, Defendant is without knowledge or belief concerning the allegations of paragraph V of the Complaint, and therefore denies same.

VI.

Defendant denies each and every allegation in paragraph VI of the Complaint.

VII.

Defendant denies each and every allegation in paragraph VII of the Complaint.

VIII.

Defendant admits having received written notice of alleged infringements, but otherwise denies the allegations in paragraph VIII of the Complaint.

IX.

Defendant denies each and every allegation in paragraph IX of the Complaint.

X.

Defendant restates his answers, above, to paragraphs II to VII of the Complaint.

XI.

Defendant denies each and every allegation in paragraph XI of the Complaint.

XII.

Defendant denies each and every allegation in paragraph XII of the Complaint.

XIII.

Defendant denies each and every allegation in paragraph XIII of the Complaint.

XIV.

Defendant denies each and every allegation in paragraph XIV [9] of the Complaint.

XV.

Defendant denies each and every allegation in paragraph XV of the Complaint.

XVI.

Defendant denies each and every allegation in paragraph XVI of the Complaint.

As further defenses, Defendant alleges:

XVII.

The patent in suit is invalid on the following grounds:

(a) The alleged invention thereof was known or used in this country, and patented or described in printed publications in this and foreign countries, before the alleged invention thereof by the patentee, Charles S. Johnson, by the patentees and patents, authors and publications listed below, (as well as by

others and additional patents and publications not presently available to Defendant, but which Defendant will ask leave to add by amended Answer when they become available):

Krause	1,369.248
Johnson	1,687,499
Robb	1,750,244
Butler	1,828,458
Lide	1,701,624
Thomson	1,731,953
McClary	521,507
Ash	725,641
Criner	1,289,120
Venable	1,704,268
Yett	1,775,745
Yett	1,775,746
Bonnot	1,781,097
Noble	1,897,490
Manabe	2,015,488
Robb	2,073,652
Johnson	2,138,277
Pipe	1,452,702
Teliet (French—Jan. 11, 1928)	636,397

"Concrete Sold on Strength Specification Only at This Plant in Indiana" published in "Pit and Quarry," August 24, 1932, issue, pages 21 and 22.

(b) The alleged invention thereof was patented or described in printed publications in this or in foreign countries, and in public use or on sale in this country, more than two years prior to the date

of the application for the Johnson patent in suit; such printed publications, and those engaging in such use and sale including the patents and patentees listed above in Paragraph (a) of this section XVII, as well as other persons and publications.

(c) The applicant for the patent in suit did not himself invent the subject matter sought to be patented therein.

(d) Before the alleged invention of the patent in suit, the alleged invention was made in this country by another who has not abandoned, suppressed or concealed it.

(e) The differences between the subject matter of the patent in suit, and the prior art, are such that the said subject matter as a whole was obvious at the time the alleged invention is alleged to have been made, to a person having ordinary skill in the art, and the patent is therefore invalid.

XVIII.

The specification of the patent in suit does not contain a written description of the invention, and of the manner of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains to make and use the same, and the specification does not set forth the best mode [11] contemplated by the alleged inventor for carrying out his invention.

XIX.

The claims of the patent in suit fail to particularly point out and distinctly claim the subject matter which the patentee regards as his invention.

XX.

The claims of the patent in suit are functional, and are broader than the alleged invention as set forth in the specification of the patent in suit, and the claims, particularly claims 1 through 4, are invalid as a matter of law, in being unsupported by the specification with respect to elements which the claims purport to define.

XXI.

The alleged invention to the extent that it is disclosed by the patent in suit, is inoperative and incapable of accomplishing the intended results, or any practical, commercial or useful purpose, and the alleged invention as disclosed and claimed in the patent are therefore lacking in that utility required by Title 35 United States Code to warrant the grant of a patent thereon.

XXII.

Upon information and belief Plaintiff's patent in suit, and particularly the claims thereof, is so restricted and limited in scope by the proceedings in the Patent Office prior to the issuance of said patent, that the claims thereof and each of them, if valid at all, are not entitled to any construction which would include or cover any device made, sold or used by Defendant, and therefore Defendant denies infringement of any of the claims of the said patent.

XXIII.

Plaintiff has been guilty of such misuses of the patent in suit, including misuses thereof in pursu-

ance of Plaintiff's licensing practices as related to the patent in suit, as to deny Plaintiff any right to any relief whatever in this action.

Wherefore, Defendant prays for judgment herein that the Complaint be dismissed, that Letters Patent No. 2,138,172 be declared invalid, that Defendant has not infringed the patent, that Defendant recover all his costs, charges and disbursements of this suit and reasonable attorneys' fees, and that Defendant be awarded such further relief as just disposition of this cause may warrant.

H. CALVIN WHITE,

WILLIAM P. GREEN,

By /s/ H. CALVIN WHITE,
Attorney for Defendants.

Affidavit of service by mail attached.

[Endorsed]: Filed October 23, 1954. [13]

[Title of District Court and Cause.]

PLAINTIFF'S PRE-TRIAL MEMORANDUM

Pursuant to the provisions of Rule 12 of the Local Rules of the United States District Court for the Southern District of California, Central Division, Plaintiff presents herewith its pre-trial memorandum.

This is an infringement action involving United States Letters Patent 2,138,172. The Defendant has denied infringement, and has set up affirmative de-

fenses. It has been stipulated that the Plaintiff will rely only upon claims 1 and 5 of the patent as being the claims infringed by the Defendant. It has also been stipulated that the count for unfair competition will not be urged at the trial. [15]

Statement of Facts

The Inventions

The present invention relates to the concrete batching field wherein plants, commonly called batch plants, measure cement, water and aggregate (usually sand and gravel) in batches of the proper weight for introduction into a concrete mixer commonly mounted on a truck called a "transit-mix" truck. A concrete batch plant constructed by Defendant, and which Plaintiff alleges to infringe the patent in suit, is shown in photographs contained in the first appendix to this memorandum.

The problem to which the patentee addressed himself had a number of important facets, some of which are listed as follows:

(1) To Achieve Accurate Proportioning of the Materials Which Make Up the Concrete. The materials which go into concrete are manufactured and graded with great accuracy, and the various ratios thereof are necessarily the subject of much calculation and experimentation by skilled engineers. This is because the proportions of materials (especially the proportion of cement) must be proper for the job at hand or else disasterous consequences, such as the collapsing of the span of a bridge, could ensue.

It will be apparent that all of the accurate grading, calculating, etc., will go for naught if the measuring (weighing) portion of concrete batch plants do not operate to measure out the materials in the necessary accurate proportions.

(2) To Insure That All of the Materials (Especially the Cement) Are Delivered From the Proportioning (Weighing) Apparatus to the Mixer. Even though the necessary accurate proportioning is effected by the weighing apparatus at a particular plant, such accurate proportioning will be to no avail if all of the measured cement, which is the vital but most expensive component of the concrete, is not delivered from the weighing means to the mix truck. The problem of transferring all of the weighed-out cement from the cement weigh hopper to the mix truck is not an easy one to solve since cement powder is a peculiar substance which does not flow readily, and is likely to stick or "hang up" in conduits therefor. Furthermore, the cement powder can be blown away by even a moderate wind, and is also subject to "gumming" or packing-up in chutes and conduits which are moistened by the aggregate materials.

(3) To Effect Pre-mixing of the Materials Between the Time They Are Measured and the Time They Are Introduced Into the Truck. If the cement were introduced into transit-mix trucks separately from the aggregate, instead of being pre-mixed therewith, it would, upon becoming moistened, tend to form a ball and would not mix with the aggregate

to form the necessary homogeneous mass of concrete. This "balling" problem is aggravated since many present-day transit-mix trucks are inefficient in that they are manufactured with relatively few mixing blades, etc., in order to decrease the empty truck weight and thus permit a greater pay load of concrete without exceeding truck weight limits on highways. Also, the amount of mixing [17] which takes place in the transit-mix truck itself may be relatively small, due to the close proximity of the batch plant and the point of concrete delivery. Pre-mixing is also extremely important where the solid concrete materials are transported in dry form in an open-topped dump truck, since the pre-mixing prevents cement from being blown away in transit.

(4) To Achieve Pre-shrinkage of the Concrete Before It Enters the Truck or Mixer. "Pre-shrinkage" occurs where the cement, water and fine aggregates fill in the "voids" (spaces between rocks) in the coarse aggregates. Pre-shrinkage is very important since it permits the carrying of a large weight of concrete in a truck of relatively small volume. It is pointed out that pre-mixing results in pre-shrinkage, but that pre-shrinkage may be achieved without pre-mixing since sand alone may fill in the voids while the vital cement is left off to one side where it is subject to balling or being blown away.

(5) To Complete Each Batching Operation in a Minimum of Time. Even seconds are of importance in many batch plants, since trucks are often lined up waiting to receive their loads. Thus speed in

weighing, and especially speed in discharging of the weigh hoppers, are of great importance.

(6) To Achieve Centralized Control, So That One Operator May Perform All Batching Operations. At the time the present invention was made, remote control systems were relatively unknown and impractical. Thus the use of hand-operated valves disposed close to each other, where one man could operate them without moving from place to place, was greatly desired.

(7) To Solve the Above Listed Problems Without Increasing Plant Height, and Without Unduly Increasing Plant Cost. Plant height is very important from a cost standpoint since a low plant requires less expensive supporting framework than a tall one. Furthermore, where the storage bins which feed materials into the weigh hoppers are located at a lesser elevation above the ground, the costs (power and equipment) of elevating the materials into the storage bins are greatly reduced.

In attempting to solve the above problems, prior art workers (as evidenced by a number of the prior art patents cited in the Answer) arranged the cement weigh hopper off to one side of the point where the materials enter the truck or cement mixer. The cement in such constructions must slide down an incline, instead of falling vertically, and must frequently pass around a corner, all of which cannot be accomplished without the aid of noisy and undesirable mechanical vibrators, and even then only with difficulty. Many of the cited references also

show constructions in which the cement either falls freely through the air in an unprotected condition, or else engages only one side of a mass of aggregate while sliding down an incline from the cement weigh hopper into the mixer or truck, and in both situations the [19] unprotected cement may be, and frequently is, blown away by the wind so that an inadequate amount of cement reaches the point of use.

Further important ways in which the prior art references fall short of solutions to the above problems will not be set forth in this memorandum. It is fair to say, however, that although a given reference may approximate a solution to one or two of the problems, no reference suggests a solution to all or even most of them.

The patentee of the patent in suit has achieved the solution to all of the above problems by positioning the cement weigh hopper within the aggregate weigh hopper, and separately suspending the cement and aggregate weigh hoppers so that accurate independent weighing thereof may be effected. Because the cement weigh hopper is disposed within the aggregate weigh hopper, it may be arranged vertically above the mix truck or cement mixer, which eliminates cement flow problems and insures that all of the measured cement will be delivered into the truck or mixer without the necessity of using auxiliary equipment such as vibrators. Because the cement hopper is disposed within the aggregate hopper, the cement discharge may be central or concentric of the aggregate discharge, which means that the discharging aggregate will completely

surround the discharging cement to prevent wind loss and gumming. Furthermore, the positioning of the cement weigh hopper within the aggregate weigh hopper, which permits the cement hopper to be disposed directly vertically above the mix truck intake opening, means that the aggregate and cement may fall freely upon leaving their weigh hopper discharge portions, which free-fall results in a very much greater degree of pre-mixing than in cases where these elements merely slide down an inclined chute.

The problems of pre-mixing, pre-shrinking, and preventing cement loss were further solved by the patentee by providing a water ring around the shaft of discharging cement and aggregate. The water ring operates to inject water efficiently into and around the discharging dry materials, the water being in proper proportion for the batch being formed.

The Patent

The application which resulted in the patent in suit was filed on February 10, 1937, by Charles S. Johnson, the founder of the Plaintiff corporation. After a relatively short prosecution, the application matured into United States patent 2,138,172 on November 29, 1938. For the convenience of the Court, a soft copy of the patent is attached as the second appendix to this memorandum.

Claims 1 and 5 of the patent are in issue and read as follows:

"1. In a batching apparatus of the class described, in combination, a main hopper to receive

aggregate material, an auxiliary hopper disposed within the main hopper, weighing machanisms one for each hopper, and means for connecting the hoppers with the weighing mechanism therefor so that each hopper may move independently relatively to the other and the materials contained therein.

"5. In a batching apparatus of the class described, a main hopper to receive coarser aggregate material, an auxiliary hopper to receive cement disposed so as to discharge the cement onto and into the coarser aggregate material, discharge means for each of said hoppers, the same being concentrically disposed and serving to produce commingling of the cement and coarser aggregate, means whereby the quantity of the cement in the cement hopper and the quantity of coarser [21] aggregates in the main hopper therefore may be accurately measured independently, means for discharging each of said hoppers to effect the commingling action referred to as the aggregates pass from the hoppers flowing in a shaft-like stream while the hoppers are discharging, and instrumentalities to supply water to the flowing shaft of aggregates in a tubular stream surrounding said aggregates and flowing into same at an angle thereto."

Infringement

Defendant, according to his own statements began making or selling concrete batch plants which Plaintiff alleges to infringe the present patent in February or March of 1950. On or about

February 16, 1953, Plaintiff notified Defendant of infringement by registered letter.

Plaintiff's Commercial Success

The patent in suit is not a paper patent in any sense of the term, since the patented apparatus has been successfully and extensively used and sold ever since prior to issuance of the patent. The patented construction was almost immediately recognized as an important contribution to the art, and even today, over eighteen years after the filing date of the patent application, is generally recognized as being the "last word" in hopper and scale arrangements in ready-mix batch plants.

Plaintiff's extensive commercial success has been due almost entirely to the merit of the patented construction, as distinguished from any effects of advertising, etc. Concrete batch plants cost many thousands of dollars and are sold almost entirely on the basis of performance, as distinguished from advertising as is the case with mass production household items.

The general practice in the trade is for a purchaser of a new batch plant to buy the entire plant from a single source. This is largely occasioned by the fact that batch plants are not mass-produced items and vary so much in dimensions and features one from another that an appreciable amount of engineering and layout work goes into the construction of each individual plant. In view thereof, it is prudent to place the responsibility for designing and manufacturing the plant with one person

or firm. Since the weighing and batching apparatus is the heart and soul of a batching plant, as distinguished from other components which are merely a collection of bins, elevators, etc., the vendor of a particularly desirable type of weighing and batching apparatus has an important commercial advantage.

Measure of Damages

While it is premature to go into the question of the amount of damages, it is believed to be desirable to go into the matter of the measuring stick to be applied. The Master may apply that stick but the kind of stick is for the Court.

A cement batching plant comprises the subject matter of the present invention plus ancillary supports, feeding means, controls, etc., to make the invention operative. The batching apparatus by itself is not independently useful. It must be supported above the ground, it must be fed the cement and aggregate it is to weigh, and it must be controlled. The additional secondary parts are part of the entire operative unit and while impressive in size and weight are merely background for the heart of the plant comprising the present invention.

Batching plants are ordinarily constructed and sold as an entity, the purchaser buying the plant with the batching apparatus of his choice. The type of steel in the supports or shingles on the roof do not concern him.

Plaintiff sells plants as entities, and batching apparatus by itself is seldom sold. The cost of the

batching apparatus is embodied in the cost of the entire plant. The profit derived is the profit of the entire plant.

It follows that when the Defendant has sold plants incorporating infringing batching apparatus he has deprived Plaintiff of the sale of batching apparatus covered by the patent together with all its supporting cooperating constructions. The measure of Plaintiff's damages is to be so gaged. Plaintiff does not refuse to sell the batching apparatus alone—it is just that the business is not so conducted and the damages should be realistically based upon the actual losses.

Stipulations and Admissions

The following stipulations have been entered into between the parties to this action:

It Is Hereby Stipulated, by and between the parties, C. S. Johnson Company and Merle W. Stromberg, d.b.a. California Batching Equipment Co., to the above-entitled action, through their respective attorneys, that the ozalid prints provided by the Defendant Stromberg and marked for identification as Plaintiff's Exhibits 1, 5 and 8 represent the cement and aggregate weigh hopper portions of the Stanton Ready Mix Plant in Stanton, California, and that said Exhibits 1, 5 and 8 together with the weigh lever and scale means at said Stanton Ready Mix Plant are typical of and represent the construction and arrangement of the weigh hoppers and scale combinations in all concrete batching apparatus which Defendant Stromberg, or those acting

for him or under his direction or control, has made or installed since August 25, 1948, in which the cement and aggregate are weighed on separate scales and in which the position of the cement at the time it is weighed by its scale is between the positions of spaced masses of aggregates at the time they are weighed by their scale, it being understood that this stipulation does not apply to the C & S Concrete Plant at El Segundo, California.

It Is Hereby Stipulated, by and between the parties C. S. Johnson Company and Merle W. Stromberg, d.b.a. California Batching Equipment Co., to the above-entitled action, through their respective attorneys, that:

1. The plaintiff, C. S. Johnson Company, is a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, and has its principal place of business in Champaign, County of Champaign, and State of Illinois.

2. The plaintiff, C. S. Johnson Company is the sole owner of all right, title and interest in and to United States Letters Patent 2,138,172 in suit and has at no time assigned any interest in that patent.

3. That plaintiff C. S. Johnson Company has placed the required statutory notice upon apparatus made by it since the issuance of said patent 2,138,-172.

4. Defendant Merle W. Stromberg, d.b.a. California Batching Equipment Co., on or about February 16, 1953, received a letter from plaintiff

notifying him of his alleged infringement of plaintiff's patent.

5. The defendant Merle W. Stromberg has, within the last six years immediately preceding the filing of this action, made and sold devices in the County of Los Angeles, State of California, which plaintiff alleges infringe said patent 2,138,172.

6. It is stipulated that uncertified printed copies of Letters Patent of the United States and photostatic copies of foreign Letters Patent furnished by the United States Patent Office shall be received in evidence when offered by either party with the same force and effect as though duly certified or exemplified and subject only to their admissibility under the pleadings, their relevancy and materiality to the issues, and subject to correction if any errors appear therein by the production of duly certified or exemplified copies; and that the recitals appearing on such copies stating the dates on which the respective patents issued shall be received as prima facie evidence of such facts so recited, subject to correction by reference to certified or exemplified copies if any errors appear therein; and that photostatic copies of printed publications shall be received in evidence when offered by either party with the same force and effect as a printed publication, and that the recitals in the printed publications or photostatic copies thereof stating the dates on which the respective publications were published shall be received as prima facie evidence of the date of publication or distribution, subject to correction by com-

petent evidence as to any error therein contained; and that photostatic or photographic copies of written documents may be offered and received in evidence in lieu of the originals thereof, but subject to all legal objections other than that such copies are secondary evidence, provided that the party offering the same shall produce the original thereof and permit the other party to compare the copy with the original thereof if requested so to do.

7. It is stipulated that uncertified photostatic copies of the file wrapper or the file history of United States Letters Patent may be introduced into evidence without further proof of authenticity, subject to the legal objections as to their relevancy and materiality, with the same force and effect as the originals and subject to correction at any time for errors. [27]

8. It is stipulated and agreed for the purposes of trial of this action that the plaintiff will rely only on claims 1 and 5 as the claim or claims infringed by the defendant.

9. It is stipulated that the count for unfair competition will not be urged at the trial.

The following requests for admissions have been admitted by the Defendant:

1. That the construction and arrangement of the cement and aggregate weigh hoppers shown in the ozalid prints provided by the Defendant Stromberg and marked for identification as Plaintiff's Exhibits 1, 5 and 8, Exhibit 1 having been initialed by the

Notary Stan Brink and Exhibits 5 and 8 having been initialed by attorneys for both plaintiff and defendant, is typical of the structure or structures identified in each of the following paragraphs, each sub-paragraph to be answered separately:

(b) The construction and arrangement of the cement and aggregate weigh hopper portions of all concrete batching apparatus which the Defendant Stromberg, or those acting for him or under his direction and control, has made, sold or installed since August 25, 1948, in which the cement and aggregate are weighed on separate scales, one scale weighing cement in a cement hopper and a second scale weighing aggregate contained in hoppers disposed on opposite sides of said cement hopper.

(d) The construction and arrangement of the cement and aggregate weigh hoppers installed by or for the Defendant Stromberg at the Stanton Ready Mix Plant at Stanton, California.

(e) With respect to Exhibit 5 only, the construction and arrangement identified in sub-paragraph (d) including the means for adding water to the cement and aggregate.

3. That the Stanton Ready Mix Plant in Stanton, California, as built by or for the Defendant Stromberg, includes one weighing mechanism for the aggregate weigh hopper and a second and separate weighing mechanism for the cement weigh hopper.

4. That the Stanton Ready Mix Plant in Stan-

ton, California, as installed by or for the Defendant Stromberg, includes apparatus for connecting the cement weigh hopper to its associated weighing mechanism, and the aggregate weigh hopper to its associated weighing mechanism.

7. That the Stanton Ready Mix Plant in Stanton, California, as installed by or for the Defendant Stromberg, includes a cement weigh hopper so positioned relative to the aggregate weigh hopper that cement being discharged from the cement weigh hopper will fall onto aggregate being concurrently discharged from the aggregate weigh hopper.

9. That the Stanton Ready Mix Plant in Stanton, California, as made by or for the Defendant Stromberg, includes cement and aggregate weigh hoppers, and admit that partial commingling of the discharging cement and aggregate occurs during concurrent discharge of said hoppers through said discharge portions.

10. That the Stanton Ready Mix Plant in Stanton, California, as made by or for the Defendant Stromberg, includes cement and aggregate weigh hoppers having discharge portions so related that cement and aggregates concurrently discharged from said discharge portions falls in a shaft-like stream.

14. That at the Stanton Ready Mix Plant in Stanton, California, as installed by or for the Defendant Stromberg, the cement and aggregate weigh hoppers, the weighing mechanisms therefor, and

the [29] apparatus for connecting the cement and aggregate weigh hoppers to their respective weighing mechanism are so constructed and arranged that the cement weigh hopper may move independently relative to the aggregate weigh hopper.

16. That during concurrent discharge of the cement and aggregate weigh hoppers the discharging cement falls between and engages aggregate discharging from said two discharge portions of the aggregate weigh hoppers.

Points and Authorities

I.

A Patent Is Presumed Valid, and the Burden of Establishing Invalidity of a Patent Rests on the Party Asserting it.

Title 35, United States Code, Section 282.

II.

The Presumption of Validity Is Strengthened Where the More Pertinent References Were Cited by the Patent Ofice During Prosecution of the Application Which Resulted in the Patent in Suit.

Pacific Contact Laboratories, Inc., et al., vs. Solex Laboratories, Inc. (1953 CA 9), 209 F. (2d) 529, 100 USPQ 12;

Hazeltine Research, Inc., vs. Avco Mfg. Corp., et al. (1954 D.C. N.D. Ill.), 126 F.S. 595, 103 USPQ 120.

III.

The Commercial Success of the Patented Apparatus Is a Factor in Determining the Validity of the Patent.

The Goodyear Tire & Rubber Co., Inc., et al., vs. Ray-O-Vac Co. (1944 U.S. Sup. Ct.), 321 U.S. 275, 60 USPQ 386;

Hazeltine Research, Inc., vs. Avco Mfg. Corp., et al. (1954 D.C. N.D. Ill.), 126 F.S. 595, 103 USPQ 120;

Oliver United Filters, Inc., vs. Silver (1953 CA 10), 206 F. (2d) 658, 98 USPQ 240.

IV.

Whoever Without Authority Makes, Uses or Sells Any Patented Invention, Within the United States During the Term of the Patent, Therefor, Infringes the Patent.

35 U.S.C. (1952) 271(a).

V.

To Find Infringement of a Patent, There Need Not Be Exact Identity Between the Patented Construction and the Accused Device.

Bianche, et al.. v. Barili; Barili v. Bianchi, et al. (1948 CCA 9), 168 F. (2d) 793, 78 USPQ 5;

Baker-Cammack Hosiery Mills, Inc., et al., vs. The Davis Company (1950 C.A. 4), 181 F. (2d) 550, 85 USPQ 94;

Byron Jackson Co. v. Wilson (1942 D.C. S.D. Cal.), 43 F.S. 392, 52 USPQ 440.

VI.

Whoever Sells a Component of a Patented Combination, Constituting a Material Part of the Invention, Knowing the Same to Be Especially Made or Especially Adapted For Use in an Infringement of Such Patent and Not a Staple Article or Commodity of Commerce Suitable for Substantial Non-Infringing Use, Is Liable As a Contributory Infringer.

35 U.S.C. (1952) 271(c).

VII.

The Specification of a Patent Need Only Contain a Written Description of the Invention, and of the Manner and Process of Making and Using It, in Such Full, Clear, Concise and Exact [32] Terms As to Enable Any Person Skilled in the Art to Which It Pertains, or With Which It Is Most Nearly Connected, to Make and Use the Same.

35 U.S.C. (1952) 112.

VIII.

The Specification of a Patent Is Adequate to Meet the Statutory Requirement Even Though There Is a Deficiency in the Drawings, If Such Deficiency Could Be Made Up By Any Person Skilled in the Art.

S. & S. Cone Corp. v. Abraham Levy, et al. (1933 D.C. E.D. N.Y.), 18 USPQ 2;

Textile Machine Works v. Alfred Hofmann & Alfred Hofmann, Inc. (1933 D.C. D. N.J.), 4 F.S. 837, 19 USPQ 149.

IX.

A Claim May Properly Contain a Recitation of An Element, Even If Such Element Is Not Shown in the Drawings, Provided Such Element Is Conventional and Well Known to the Art.

Victor Kaplan v. Thomas E. Robertson, Commissioner of Patents (1931 D.C. D. Md.), 50 F. (2d) 617, 9 USPQ 563.

X.

Pointlessly Technical Defenses Should Not Have the Effect of Defeating a Patent to a Meritorious Invention.

Pacific Contact Laboratories, Inc., et al., v. Solex Laboratories, Inc. (1953 CA 9), 209 F. (2d) 529, 100 USPQ 12.

XI.

An Element in a Claim for a Combination May Be Expressed As a Means for Performing a Specified Function Without the Recital of Structure in Support Thereof, and Such Claim Shall Be Construed to Cover the Corresponding Structure Described in the Specification and Equivalents Thereof.

35 U.S.C. (1952) 112(3);

S. D. Warren Co. v. Nashua Gummed & Coated Paper Co. (1953 CA 1), 205 F. (2d) 602, 98 USPQ 41;

Ex parte Ball and Hair (1953 P.O.B.A.), 99 USPQ 146;

Ex parte Retallack (1953 P.O.B.A.), 99 USPQ 258;

Ex parte Magnuson & Daugherty (1953 P.O.B.A.), 104 USPQ 197;

Ex parte Johnson (1954 P.O.B.A.), 105 USPQ 128.

XII.

A Patent Relating to a Non-Analogous Art Is Not a Proper Reference, and Should Not Be Considered Upon the Question of Invention.

Stearns, et al., v. Tinker & Rasor, et al. (1955 CA 9), 220 F. (2d) 49, 104 USPQ 234.

XIII.

The Measure of Damages for Patent Infringement Should Be Adequate to Compensate for the Infringement, But in No Event Less Than a Reasonable Royalty for the Use Made of the Invention by the Infringer.

35 U.S.C. (1952) 284. [34]

XIV.

The Term "Damages in the Patent Act of 1952 Is Broad Enough to Include the Profits Made by the Infringer.

Article in the Journal of the Patent Office Society, Volume 36, starting at page 317 (May, 1954).

XV.

Where the Thing Made and Sold by the Defendant Would Be Useless for Its Special Purpose

Without the Part Covered by the Patent, or Where No Other Known Article Would Answer That Purpose Well Enough to Find Purchasers, All of the Profits Which the Infringer Derived from the Entire Thing Are Clearly Due to the Patented Part and Are Recoverable by the Complainant.

Walker on Patents, Deller's Edition (1937), page 2204.

XVI.

Where an Entire Structure Is Sold Together and the Patented Component Forms the Critical Part Thereof, It Is Proper to Measure the Recovery Due a Successful Patentee Plaintiff on the Value of the Entire Structure.

The Filtex Corporation v. Atiyeh (1954 CA 9), 216 F. (2d) 443, 103 USPQ 197;

Otis Elevator Company v. John W. Kiesling and Son, Inc. (1949 D.C. E.D. N.Y.), 87 F.S. 408, 83 USPQ 289;

Electrical Engineers Equipment Co. v. Champion Switch Co. (1931 D.C. W.D. N.Y.), 49 F. (2d) 359.

XVII.

Damages Awarded a Successful Plaintiff Should Be Higher Than Any Royalty Charged Licensees, Otherwise One Could Infringe With Impunity and Then Pay Only That Which License Would Have Required.

Otis Elevator Company v. John W. Kiesling and Son, Inc. (1949 D.C. E.D. N.Y.), 87 F.S. 408, 83 USPQ 289;

Article in the Journal of the Patent Office Society, Volume 36, starting at page 317 (May, 1954).

XVIII.

One License Does Not Establish a Royalty.

Faulkner v. Gibbs (1952 CA 9), 199 F. (2d) 635, 95 USPQ 400.

Dated: July 20, 1955.

Respectfully submitted,

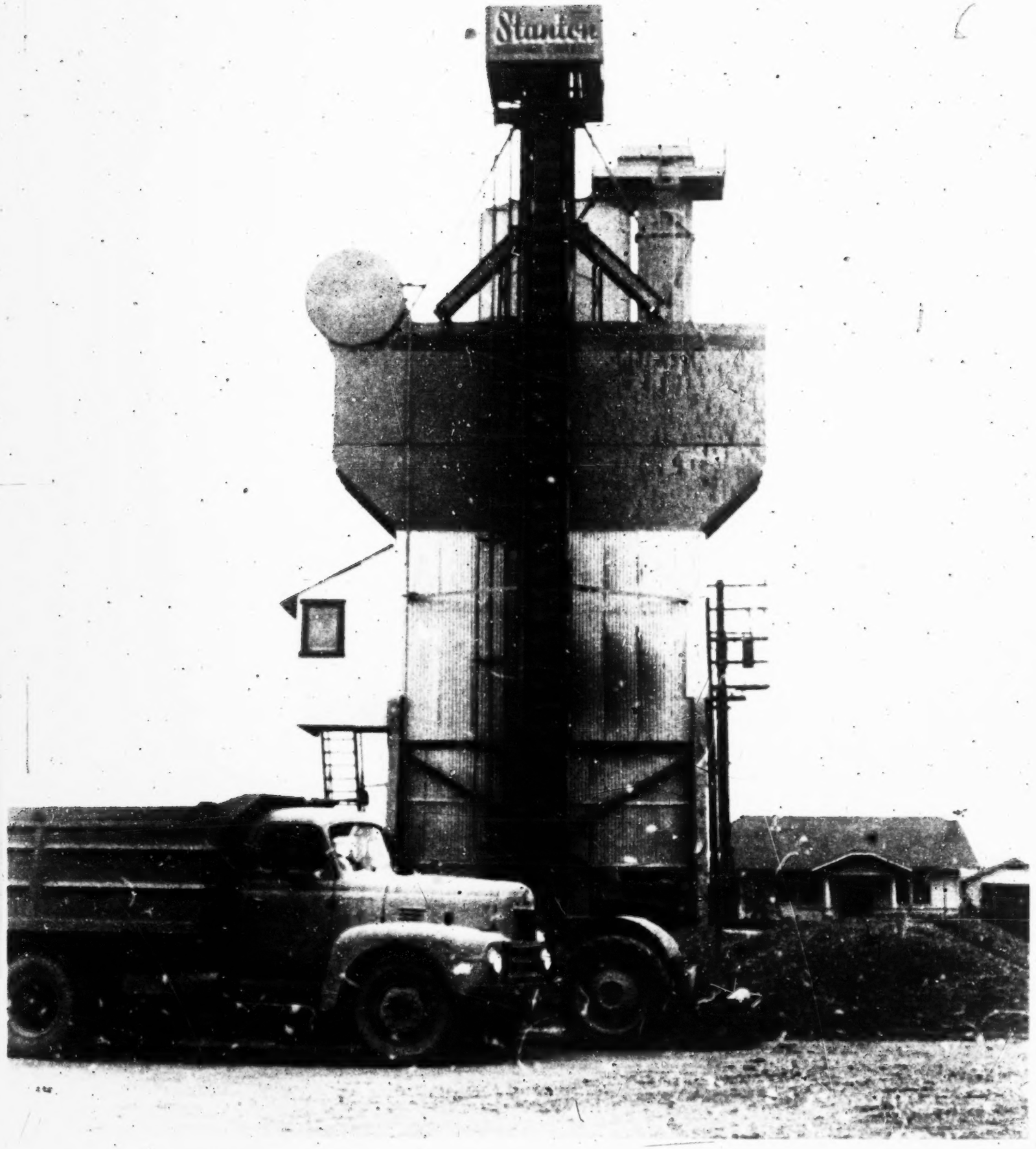
WILLIAM DOUGLAS SELLERS,

RICHARD L. GAUSEWITZ,

WILLIAM A. DENNY,

By /s/ R. L. GAUSEWITZ,
Attorneys for Plaintiff.

[Endorsed]: Filed July 21, 1955. [36]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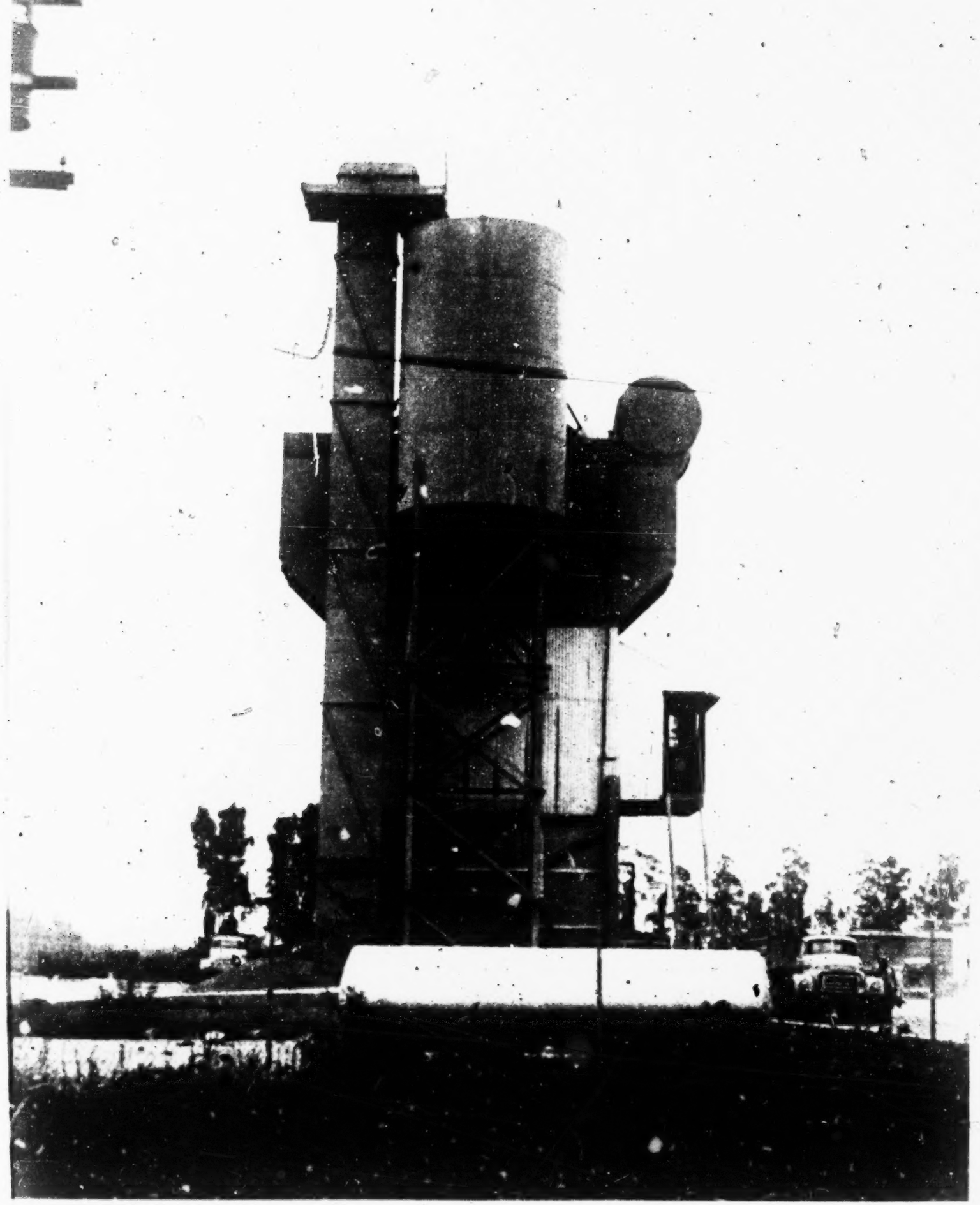

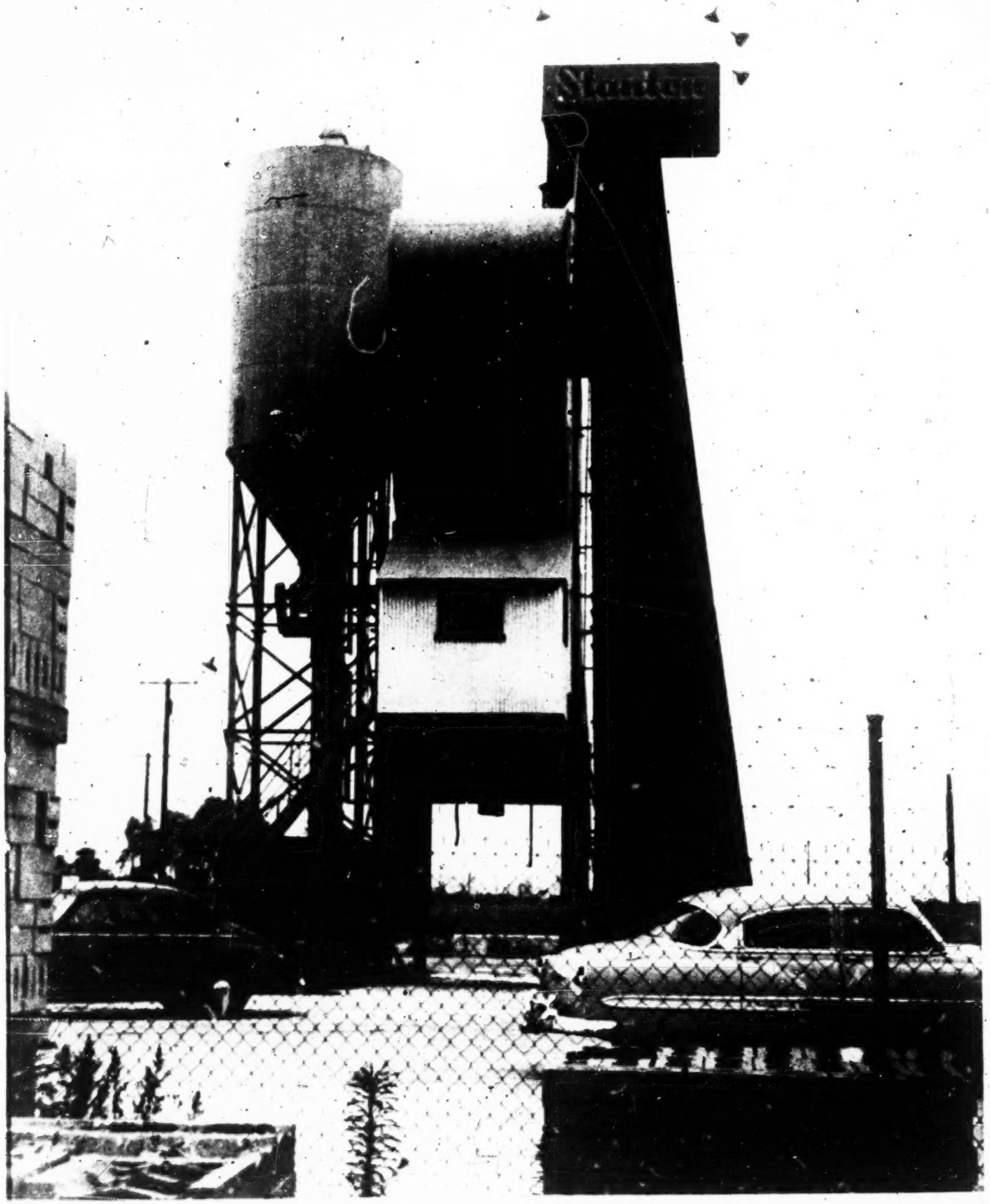
Standard

[Title of District Court and Cause.]

MOTION OF ATTORNEYS FOR DEFENDANT TO WITHDRAW FROM THE CASE

Come now H. Calvin White and William P. Green, attorneys of record for defendants in this action, and move that they be permitted by this Court to withdraw from the case, the reasons necessitating the withdrawal being set forth in the accompanying affidavit of H. Calvin White.

The undersigned hereby represent to the Court that to the best of their knowledge and belief, all their duties and obligations in behalf of defendant in this action have been fully performed to this time.

Dated at Los Angeles, California, this 12th day of September, 1955.

/s/ H. CALVIN WHITE,

/s/ WILLIAM P. GREEN,
Attorneys for Defendant.

Affidavit of service by mail attached.

[Endorsed]: Filed September 13, 1955. [48]

[Title of District Court and Cause.]

AFFIDAVIT OF H. CALVIN WHITE

H. Calvin White, being duly sworn, deposes and states:

I am an attorney of record in this action together with Mr. William P. Green and have personally handled to date virtually all work, correspondence and contracts with the defendant therein.

The essential facts in support of the accompanying Motion of Attorneys for Defendant to Withdraw from the Case are these:

The nature of the case is such that there must be agreement and understanding between attorneys and client with respect to the nature and significance of evidence, its presentation, assistance to be given the Court by qualified testimony, and confinement of the issues to those defenses deserving of hearing before the Court.

On these matters I have experienced controversy, misunderstanding or disagreement with defendant, and I have found myself unable to obtain from defendant definite authorization to do those things which I consider necessary for proper presentation of defendant's case from the standpoint of the Court, defendant and myself. Most recently I had been unable to learn from defendant whether defendant would appear at the trial as set for July 25, 1955, after I had advised defendant that his appearance, in my opinion, would be necessary.

On July 21, 1955, I informed defendant by registered mail of the intention of his attorneys to withdraw from the case and recommended the appointment of substitute attorneys. On July 27, 1955, I again wrote to defendant advising him the case was scheduled for further setting on September 12, 1955, and suggested that substitute counsel appear

on that date. I have received no response to that letter. On August 29, 1955, I wrote defendant asking him to advise me whether substitute counsel would appear in this Court on September 12, 1955, for further setting of the case. No response to this letter has been received.

It is affiant's belief that under the circumstances attorneys for defendant can neither properly inform the Court concerning the merits of defendant's case nor can they be certain of having the opportunity to serve the just interests of defendant with respect to the true merits of his defenses.

Dated at Los Angeles this 8th day of September, 1955.

/s/ H. CALVIN WHITE.

Duly verified.

Affidavit of service by mail attached.

[Endorsed]: Filed September 13, 1955. [51]

[Title of District Court and Cause.]

ORDER RE. MOTION OF ATTORNEYS FOR DEFENDANT TO WITHDRAW FROM CASE

The accompanying Motion of Attorneys for Dedendant to Withdraw from the Case, having been presented and heard, and good cause appearing, it is hereby ordered that the motion be granted and that attorneys for defendant be relieved from any

future responsibilities in the case unless and until further instructed to the contrary by this Court.

Dated this 3rd day of October, 1955.

/s/ HARRY C. WESTOVER,
Judge of the District Court.

Lodged: September 13, 1955.

[Endorsed]: Filed October 3, 1955. [53]

[Title of District Court and Cause.]

NOTICE UNDER TITLE 35 USC 282

Notice Is Hereby Given pursuant to Title 35 U.S.C., Section 282, that the following United States Letters Patents will be relied upon as anticipating the patent in suit:

Garlinghouse No. 2,097,551, issued Nov. 2, 1937;

Dorrington No. 2,137,334, issued Nov. 22, 1938.

LYON & LYON,

By /s/ R. DOUGLAS LYON,
Attorneys for Defendant.

[Endorsed]: Filed February 10, 1956. [55]

[Title of District Court and Cause.]

MOTION FOR CONTINUANCE

Comes Now the Defendant in the above-entitled action and moves this Court for a continuance of the trial now set for March 12, 1956, to a date more than thirty (30) days subsequent to March 12, 1956.

This motion will be based upon the pleadings on file in this action and the accompanying memorandum of points and authorities.

MERLE W. STROMBERG, et al.,
Defendants;

By /s/ R. DOUGLAS LYON,
Their Attorney. [58]

[Title of District Court and Cause.]

MEMORANDUM OF POINTS AND AUTHORITIES

The undersigned has recently been retained as counsel for defendant in this action, the former attorney having withdrawn. The present attorney for defendant has tried to negotiate some form of settlement in this action, however, such attempts have been unsuccessful. Consequently, it is apparent that a trial in this action will be necessary.

In this respect on February 10, 1956, counsel filed a notice under Title 35 USC 282, of additional patents to be relied upon. On approximately February 6 or 7, 1956, defendant and his counsel were

advised of the possibility of prior use of the invention by the Hetzel Steel and Iron Company of Warren, Ohio. Defendant then proceeded on a business trip to Chicago, Illinois, where several other persons confirmed the possibility of the existence of this defense. On the 16th of February, 1956, defendant contacted Mr. McBride, the engineer of the Hetzel Steel [59] and Iron Company in an effort to obtain documentary proof of the purported prior use.

It is believed that the prior construction of batching equipment by this organization will illustrate that there is complete lack of invention of the Johnson patent in suit. However, because of the provisions of Section 282, Title 35 USC, this defense is presently unavailable to defendant.

It is, therefore, requested that in the interest of justice the trial in this matter be postponed a sufficient amount of time to permit defendant to further investigate this prior use and to give the necessary thirty (30) days allowed under Section 282, Title 35 USC, to make this defense available.

MERLE W. STROMBERG, et al.,
Defendants;

By /s/ R. DOUGLAS LYON,
Their Attorney.

Affidavit of service by mail attached.

[Endorsed]: Filed February 24, 1956. [60]

[Title of District Court and Cause.]

PLAINTIFF'S MEMORANDUM OF POINTS AND AUTHORITIES IN OPPOSITION TO DEFENDANT'S MOTION FOR CONTINUANCE

To the Honorable, the Judges of the United States District Court in and for the Southern District of California, Central Division:

The defendant Merle W. Stromberg has moved this Honorable Court for a continuance of the trial now set for March 12, 1956, to a date more than thirty (30) days subsequent. The admitted purpose and reason for the request is to enable the defendant to bring in additional defenses in avoidance of the provisions of Title 35 USC 282, which requires that notice be given thirty days prior to trial.

This requested delay by the defendant is opposed by plaintiff as being completely unjustified in view of the history of this case.

The complaint in this action was filed in August of the year 1954, and was served upon the defendant on September 17 of that year. The defendant was given additional time in which to answer by a [62] stipulation and upon October 22, 1954, filed his answer.

Interrogatories were filed by both parties; a request for admissions was made by the plaintiff; the defendant's deposition was taken. The exact times of these matters is not important, it being sufficient to

point out that they were all completed prior to July 15, 1955.

On January 10, 1955, this case was called for setting before His Honor, Judge Westover, and was set for trial on July 25, 1955. Due to the fact that certain cases on the Court's calendar lasted longer than expected, the case could not be heard by Judge Westover on July 25, 1955. In this connection, it was interesting to note that under the provisions of Local Rule 12 a trial memorandum was due five days prior to the trial date of July 25, 1955. The plaintiff filed a trial memorandum on July 20, 1955. No memorandum was filed or served on behalf of the defendant and none has been filed or served to date.

On September 12, 1955, Judge Westover set the case over for setting on December 19, 1955, and on that date set the case for trial on March 12, 1956.

On September 19, 1955, H. Calvin White, attorney for the defendant Stromberg, withdrew from the case basing his withdrawal upon the grounds that he was unable to obtain co-operation from the defendant in the preparation of the case.

On December 8, 1955, Mr. Sellers, of counsel for plaintiff, received a telephone call from R. Douglas Lyon, Esq., stating that he had been retained as counsel for Mr. Stromberg and inquiring concerning the case. Various telephone conversations with Mr. Lyon took place since that time.

On February 13, 1956, a notice of prior patents

was received by the plaintiff from the attorney for Mr. Stromberg under the provision of 35 USC 282.

The case is now set for trial on March 12, 1956.

We do not have here a case in which the defendant has had inadequate time in which to prepare for trial. He wilfully and intentionally failed to prepare for trial so palpably that his own attorney withdrew and with the consent of the Court. (See in this connection the affidavit of H. Calvin White, Esq., dated September 8, 1955, and on file in this action.)

This is not a case in which new counsel has not had adequate time in which to prepare. The record shows that since early in December present counsel for Stromberg was working in connection with the case.

This motion should not be granted, and for another reason. First, it is recited that information concerning this new potential anticipatory evidence was known "On approximately February 6 or 7, 1956." The notice which was filed under the provisions of Title 35 USC 282 in this action was not filed until February 10, 1956. In other words, reference to this alleged anticipatory prior public use was intentionally omitted from the notice which was in fact later served and filed.

Additionally, there is no more stated in the Memorandum of Points and Authorities than that there is a rumor that there may be prior use. No one states of his own personal knowledge that such pub-

lic use exists. The defendant's Memorandum of Points and Authorities very carefully avoids any direct allegation that either the defendant or his attorney knows of such public use, or that anyone whose name is mentioned has specified any details concerning it. There is no supporting affidavit. Instead, we find indirect conclusions such as:

1. "* * * several other persons confirmed the possibility of the existence of this defense."

2. "It is believed that the prior construction of batching equipment by this organization will illustrate * * *" [64]

Stated differently, the defendant presents no more than a vague hope and a wish based upon a rumor that if given additional time in which to be diligent, and to make up for the lack of diligence which he has heretofore shown, he may be able to find evidence which will invalidate the patent in suit. It is respectfully contended that plaintiff is entitled to his day in court. This case was ready for trial and trial has now been delayed since July of the year 1955. The defendant has failed since the due date immediately prior to that date of setting to provide the trial brief required. He wilfully failed to co-operate with his own attorney to enable him to prepare the case for trial. He now comes into court with hands which are, to use a term in equity, unclean, and seeks to be relieved from his own lack of diligence. The delay requested by the defendant would be unfair to the plaintiff who has prepared for trial, has its witnesses prepared, and

its calendar adjusted to take care of the trial at this time.

Under these circumstances it is believed that this motion should be denied and such action is respectfully urged.

Dated: February 28, 1956.

Respectfully submitted,

WILLIAM DOUGLAS SELLERS,

RICHARD L. GAUSEWITZ,

WILLIAM A. DENNY,

By /s/ W. D. SELLERS,
Attorneys for Plaintiff.

Affidavit of service by mail attached.

[Endorsed]: Filed February 29, 1956. [65]

[Title of District Court and Cause.]

DEFENDANT'S PRETRIAL MEMORANDUM

Pursuant to provision of Rule 12 of the Local Rules, Defendant herewith presents his pretrial memorandum.

The only issues presented in this action are the questions of validity of claims 1 and 5 of Johnson patent No. 2,138,172 and whether or not these claims have been infringed by Defendant. Plaintiff in its pretrial memorandum has devoted considerable time

to discussion of what the alleged invention comprises. It is significant to note, however, that no effort is made to relate this discussion to the definition of the invention in claim 1 and in claim 5. It is fundamental patent law that a claim measures the monopoly, that if an inventor claims less than what he would be entitled, the remainder of his invention is dedicated to the public. Walker on Patents, Deller's Edition, Vol. 2, page 1231, and following 35 USC §112. Thus plaintiff's abstract discussion of what constitutes invention in the present case is of little assistance. [69]

Defendant will hereinafter discuss this action in two respects, first, concerning the problem of the purported invention of claim 1 of the Johnson patent and its infringement, and subsequently, the purported invention of claim 5 and its infringement. It is to be remembered at this point that the remaining claims of the patent are not in issue. We are unconcerned with whether or not they define an invention.

Claim 1 of the Johnson patent reads as follows:

> "In a batching apparatus of the class described, in combination:
>
> a main hopper to receive aggregate material,
>
> an auxiliary hopper disposed within the main hopper,
>
> weighing mechanisms one for each hopper, and
>
> means for connecting the hoppers with the weighing mechanism therefor so that each hopper may move independently relative to the other and the materials contained therein."

It is to be noted that this claim definition of the alleged invention includes two hoppers, each separately suspended from a scale and one positioned within the other. It is Defendant's contention that this claim does not define a patentable invention. Irrespective of whether or not Mr. Johnson made an invention, irrespective of whether or not the other claims in the patent are valid, it is Defendant's contention that this claim, this particular definition of the invention, is invalid. It is to be noted that the claim does not define concentric discharges or for that matter any discharges. It is to be noted that the claim does not include any flexible shroud or means for providing a tubular stream of water, or any of the other elements. This claim is attempting to monopolize the concept of having two hoppers, one disposed within the other and each suspended from its own distinct [70] scale. It is to be noted that the claim is not limited in any way to a cement batching device. This claim has no relation to cement operations. Further reference is made to the specification of the patent, in the first paragraph thereof, wherein the inventor expressly states that he does not intend to limit his invention to batching of concrete. Thus we have a claim which endeavors to broadly monopolize the concept of placing one hopper within another and suspending same from individual scales.

It is Defendant's contention that this claim is invalid for two reasons, first, there is no co-operative relationship between the elements of the claim,

so that the claim does not define a true combination and does not fall within the statutory definition of patentable invention. Secondly, the individual hoppers and their scales each produce a known and old result, the combination thereof merely produces an aggregation of the results and nothing in addition thereto, consequently, no patentable invention is present.

Referring to the first ground set forth, it is well established both in the decisions of the United States Supreme Court and in the decisions of the Court of Appeals for the Ninth Circuit, that in order to constitute a patentable combination the elements set forth in the claim must co-operate together to produce a unitary result. If the elements of a claim have no relationship to one another, the claim defines what has been frequently termed an aggregation and not a patentable combination. A classic example, one given by all the text writers of this type of invalidity, is found in the decision of the United States Supreme Court in the case of Reckendorfer v. Faber, C.D. 1876, 23 L. Ed. 719. In this case a patent was issued on a pencil having an eraser at one end thereof. The Supreme Court held that the decision of the Commissioner of Patents granting such patent was not conclusive but merely established a prima facie case, and in this instance he had [71] erred in granting the patent. The Court proceeded to determine that there was no co-operative relationship between the elements of the claims. In other words, the pencil end was used or the device was inverted and the eraser was used, never did the

two join together to produce any single result, stating at page 357:

> "The combination, to be patentable, must produce a different force or effect, or result in the combined forces or processes, from that given by their separate parts. There must be a new result produced by their union; if not so, it is only an aggregation of separate elements."

and again at pages 357 and 358:

> "In the case we are considering, the parts claimed to make a combination are distinct and disconnected. Not only is there no new result, but no joint operation. When the lead is used, it performs the same operation and in the same manner as it would do if there were no rubber at the other end of the pencil; when the rubber is used, it is in the same manner and performs the same duty as if the lead were not in the same pencil * * * It may be more convenient to turn over the different ends of the same stick than to lay down one stick and take up another. This, however, is not invention within the patent law, as the authorities cited fully show."

The same identical situation is present in claim 1 of the patent in suit. One can fill the outer or main hopper so that it will be weighed on its scale without any effect whatsoever on the other or auxiliary hopper, as a matter of fact, the auxiliary hopper might just as well be somewhere else. If one filled the auxiliary hopper it moves with its own scale and the weight thereof registered, there is no action

on the main hopper, and this main hopper might just as well be somewhere else. Thus the claim defines precisely the same type of thing which the Supreme Court held in the above-quoted case to constitute non-patentable subject matter. Never do the two hoppers as set forth in claim 1 ever co-operate together to produce any result whatsoever. Again it is pointed out to the Court that this claim does not include in its definition of the invention any other elements. There is no mention of discharges, no mention of the discharges being concentric and none of the other elements of the structure described are included in the claim. We are not concerned as to whether or not any of the remaining claims define proper subject matter, probably claims 2, 3 and 4 do, but claim 1 does not. This claim is clearly invalid in view of the above-quoted decision. This same rule has been adopted and applied by the Ninth Circuit Court of Appeals in Willard, et al., v. Union Tool Co. (C.C.A. 9th Cir. 1918), 253 F. 48. Here again the Court found that the device could be used in the alternative, that is, one portion used or the other portion, but no co-operative union, no functioning existed between the two isolated elements. Consequently, it is submitted that claim 1 of the Johnson patent is clearly invalid.

It is, of course, well established that a Court cannot read into a claim any limitation for the purpose of sustaining same. The Supreme Court has stated many many times that it is the claims of a patent that measure the grant. The claims must be sufficiently definite to permit the public to read the

patent and determine that which it is forbidden to do. See for example Graver Tank & Mfg. Co. v. Linde Air Products Co. (336 US 271) 93 L. Ed. 672. Although in a case where a claim is ambiguous reference might be made to the specification to ascertain what the language in the claim means, where a claim is clear and unambiguous the clear construction of the claim cannot be varied. As stated in Graver v. Linde at pages 677 and 678: [73]

> "The difference between the District Court and the Court of Appeals as to these findings comes to this: The trial court looked at claims 24 and 26 alone and declined to interpret the terms 'silicates' and 'metallic silicates' therein as being limited or qualified by specifications to mean only the nine metallic silicates which had been proved operative. The District Court considered that the claims therefore were too broad and comprehended more than the invention. The Court of Appeals considered that because there was nothing in the record to show that the applicants for the patent intended by these claims to assert a monopoly broader than nine metallic silicates names in the specifications, the court should have construed the claims as thus narrowed and limited by the specifications.
>
> "The statute makes provision for specification separately from the claims and requires that the latter 'shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or

discovery.' Rev. Stat. § 4888, as amended, 35 USCA § 33, 9 FCA Title 35, § 33. It would accomplish little to require that claims be separately written if they are not to be separately read.

"While vain repetition is no more to be encouraged in patents than in other documents, and claims like other statements may incorporate other matter by reference, their text must be sufficient to 'particularly point out and distinctly claim' an identifiable invention or discovery. We have frequently held that it is the claim which measures the grant to the patentee. See for example, Milcor Steel Co. v. George A. Fuller Co. 316 US 143, 145, 86 L ed 1332, 1334, 62 S Ct 969; General [74] Electric Co. v. Wabash Appliance Corp., 304 US 364, 369, 82 L ed 1402, 1405, 58 S Ct 899; Altoona Publix Theatres v. American Tri-Ergon Corp., 294 US 477, 487, 79 L ed 1005, 1012, 55 S Ct 455. While the cases more often have dealt with efforts to resort to specifications to expand claims, it is clear that the latter fail equally to perform their function as a measure of the grant when they overclaim the invention. When they do so to the point of invalidity and are free from ambiguity which might justify resort to the specifications, we agree with the District Court that they are not to be saved because the latter are less inclusive. Cf. General Electric Co. v. Wabash Appliance Corp. 304 US 364, 378, 374, 82 L ed 1402, 1407, 1408, 58 S Ct 899; see McClain v. Ortmayer,

141 US 419, 424, 425, 35 L ed 800, 802, 803, 12 S Ct 76; Cimiotti Unhairing Co. v. American Fur Ref. Co. 198 US 399, 410; 49 L ed 1100, 1105, 25 S Ct 697.

"We think the District Court correctly applied this principle to claims 24 and 26."

This principle is so well established that a citation of authorities is hardly necessary. However, the following cases have all reiterated and applied the rule that a Court cannot read a limitation or a new limiting element into a claim which would otherwise be invalid. See

Alma Motor Company v. The United States (U.S.C.C. 1955) 134 Fed. Supp. 641;

Cold Metal Process Co. v. Republic Steel Corp. (U.S.D.C.N.D. Ohio) E.D. 1954) 123 F. Supp. 525;

Cutter Laboratories, Inc., v. Lyophile-Cryochem Corporation (U.S.C.A. 9th Cir. 1949) 179 Fed. 2nd, 80;

Montgomery-Ward & Co., Inc., v. Coe (U.S. C.A. D.C. 1943) 139 F. 2d, 17;

DeCew v. Union Bag & Paper Corporation (D.C.D.N.J. 1944) 57 F. Supp. 388;

Flakice Corporation v. Liquid Freeze Corp. (U.S.D.C.N.D. Calif. S.D. 1955) 130 F. Supp. 471;

Wayne, et al., v. Humble Oil & Refining Co. (U.S.C.A. 5th Cir. 1949) 175 F. 2d, 230.

The second reason advanced by Defendants for the invalidity of claim 1 lies in the complete lack of invention in the combination defined by the claim. Even assuming for purposes of argument alone that the claim does define a patentable combination within the meaning of the rule above set forth, the combination fails to rise to the standard necessary in order that it constitute an invention as distinguished from mere mechanical skill. It is extremely old in the prior art to provide separate hoppers for the aggregate and for the cement which are separately weighed. See for example the patent to Robb No. 1,750,244. No new result is obtained by placing one hopper within the other. Again the Court's attention is called to the fact that the claim does not define the complete structure, does not define any discharges or other elements by which it can be argued that any premix or commingling is the result obtainable. The claim merely defines the combination of one hopper within the other each separately suspended from a pair of scales. Defendant is unable to see where any new or different functioning or result is obtained from this combination. How does it differ from the hoppers being side by side, each hopper and its scale still performs the sole function of weighing material put therein, the fact that one hopper is within the other in no way affects this weighing process. It is precisely this type of a situation which the Supreme Court had in mind in Great A. & P. Tea Co. vs. Supermarket Equip. Corp., 340 US 147, 95 L ed. 162. The Courts have since the introduction of the patent system

struggled with the problem of defining what constitutes an invention. Although many attempts have been made no satisfactory definition of the word invention has yet appeared. However, there are a number of relatively easily applied rules which determine where invention is lacking. Thus the Supreme Court has established one of the clearer examples of what type of combination claim is invalid for want of invention where the aggregate of the results [76] of the individual elements perform or produce no new or different function or operation than that heretofore performed or produced individually. The Supreme Court has summarized the standard to be applied in determining whether or not a claim for a combination of old mechanical elements does or does not constitute a patentable invention, stating at pages 166 and 167:

> "While this Court has sustained combination patents, it never has ventured to give a precise and comprehensive definition of the test to be applied in such cases. The voluminous literature which the subject has excited discloses no such test. It is agreed that the key to patentability of a mechanical device that brings old factors into cooperation is presence or lack of invention. In course of time the profession came to employ the term 'combination' to imply its presence and the term 'aggregation' to signify its absence, thus making antonyms in legal art of words which in ordinary speech are more nearly synonyms. However useful as words of art to denote in short form that an assembly of

units has failed or has met the examination for invention, their employment as tests to determine invention results in nothing but confusion. The concept of invention is inherently elusive when applied to combination of old elements. This, together with the imprecision of our language, have counselled courts and text writers to be cautious in affirmative definitions or rules on the subject.

"The negative rule accrued from many litigations was condensed about as precisely as the subject permits in Lincoln Engineering Co. vs. Stewart-Warner Corp. 303 US 545, 549, 82 L ed. 1008, 1010, 58 S Ct. 662: 'The mere aggregation of a number of old parts or elements which, in the aggregation, perform or produce no new or different function [77] or operation than that theretofore performed or produced by them, is not patentable invention.' To the same end is Toledo Pressed Steel Co. vs. Standard Parts, Inc., 307 US 350, 83 L ed. 1334, 59 S Ct 897, and Cuno Engineering Corp. vs. Automatic Devices Corp. 314 US 84, 86, L ed. 58, 62 S Ct. 37. The conjunction or concert of known elements must contribute something; only when the whole in some way exceeds the sum of its parts is the accumulation of old devices patentable. Elements may, of course, especially in chemistry or electronics, take on some new quality or function from being brought into concert, but this is not a usual result of uniting elements old in mechanics. This case is wanting

in any unusual or surprising consequences from the unification of the elements here concerned, and there is nothing to indicate that the lower courts scrutinized the claims in the light of this rather severe test."

Since this decision a great number of cases have been decided applying this rule. See Park-In Theatres vs. Perkins, 9th Cir. (1951), 190 Fed. 2d, 137, where, after quoting from the A & P case, the Court said, page 140:

"The applicability of this language to the problem before us is clear. Not a single element of plaintiff's claim performs a function in the drive-in theatre significantly different from the function it has always performed * * * The assembly of the elements of a successful drive-in theatre was not inventive."

See also Hutchinson Mfg. Co. vs. Mayrath, 10th Cir. 1951, 192 Fed. 2d, 110, wherein the Court stated at pages 111 and 112:

"No prior patent or disclosure shows all of the elements of any one of the claims in a single device, but all of the elements in each of the several claims are [78] disclosed by prior patents where they perform the same functions as they perform in the device of the patent in suit.

"(1) When the respective individual functions of the elements assembled are not changed and where they produce no result other than the added results of such functions, there is a mere aggregation of elements.

"(2) When the elements are so united that by their reciprocal influence upon each other, or by their joint action on a common objective, they perform additional functions and accomplish additional results, the union is a true combination.

"(3) The result must be due to the joint and cooperative action of all the elements, not a mere aggregation of the several results of the separate elements acting independently; it must be the product of the combination and not a mere aggregate of several results, each a complete product of one of the combined elements."

In Ritchie vs. Lewis-Browning Mfg. Co. (5th Cir. 1952), 196 Fed. 2d. 434, the Court summarized the rule at page 436:

"He added together the two old effects, each independently usable, the staggered arrangement of wheels, and the better comparction accomplished by pneumatic rubber tires. 'Mere aggregation of several results, each the complete product of one of the combined elements' does not make a patentable combination."

In Himes vs. Chadwick (9th Cir. 1952), 199 Fed. 2d, 100, the Court of Appeals stated the rule on page 106:

"The concept of invention may of course be present where a mechanical device involves no more than combinations of old and familiar elements and ideas. But before invention may be found '(t)he conjunction or concert [79] of

known elements must contribute something; only when the whole in some way exceeds the sum of its parts is the accumulation of old devices patentable.' Great Atlantic & Pac. Tea Co. vs. Supermarket Corp., 340 U.S. 147, 152, 71 S. Ct. 127, 130, 95 L. Ed. 162. The test is whether the unification of the elements brought into the combination produces 'unusual or surprising consequences.' Great Atlantic & Pac. Tea Co. vs. Supermarket, supra; Packwood vs. Briggs & Stratton Corp., supra. 'The mere aggregation of a number of old parts or elements which, in the aggregation, perform or produce no new or different function or operation than that theretofore performed or produced by them, is not patentable invention.' Lincoln Engineering Co. vs. Stewart-Warner Corp., 303 U.S. 545, 549, 58 S. Ct. 662, 664, 82 L. Ed. 1008."

As late as February, 1954, the Circuit Court of Appeals in Kwikset Locks vs. Hillgren (9th Cir. 1954) 210 Fed. 2d, 483, reiterated and applied the rule, stating at pages 486 and 487:

"In the circumstance where a patent is sought on a combination of devices or processes known to the prior art, the concept of invention remains elusive. It has been said that, in order for the combination to be considered a patentable invention it must 'perform some new or different function—one that has unusual or surprising consequences.' Photochart vs. Photo Patrol, 9 Cir. 1951, 189 F. 2d 625, 627; Grinnell Wash-

ing Machine Co. vs. E. E. Johnson Co., 1918, 247 US 426, 38 S. Ct. 547, 62 L. Ed. 1196; Great Atlantic & Pacific Tea Co. vs. Supermarket Equip. Corp., 1950, 340 U.S. 147, 71 S. Ct. 127, 95 L. Ed. 162. There is no invention in a 'mere aggregation of a number of old parts or elements,' nor in the accumulation of old devices which do not in some way exceed the sum of its parts.' Moreover, a truly inventive combination must create what had not before existed or bring to light what lay hidden from vision in a way which can be distinguished from 'simple mechanical skill.' A mere advance in efficiency and utility is not enough to convert a noninventive aggregation into a patentable combination.

"The Supreme Court has recently considered the problem of patentable combinations and has established certain criteria and standards which the lower federal courts must apply in determining whether a combination patent is valid. The Supreme Court directs us to, 'scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements. The function of a patent is to add to the sum of useful knowledge. Patents cannot be sustained when, on the contrary, their effect is to subtract from former resources freely available to skilled artisans. A patent for a combination which only unites old elements with no change in their respective functions * * * obviously withdraws what already is known into the

the field of its monopoly and diminishes the resources available to skillful men.' Great Atlantic & Pacific Tea Co. vs. Supermarket Equipment Corp., supra. The Supreme Court further requires that in order for a combination patent to be upheld, there must be a specific finding that the old elements which made up this device perform an additional and different function in combination, than they perform out of it. No such finding was made in the case at bar. Nor do we believe that the district court applied the strict standard or close scrutiny to this combination patent required by the Supreme Court."

Thus it is believed apparent from the above-cited decisions that there is no possible way that the clear, definite and unambiguous language of claim 1 of the patent can be considered to define a patentable invention, first, because the claim defines two isolated, distinct and separate entities, one hopper hanging from [81] one scale, the other hopper from another scale, the two never function together to produce any result. Also, any result obtainable from this combination of elements is a mere aggregation of the results of the individual elements, nothing new, nothing unusual or surprising is accomplished. Nothing more than anyone would expect is accomplished if one hopper is hung from one scale and the other hopper from another scale, nor is anything unusual accomplished by putting one of the hoppers within the other. Again it is believed vitally important to call the Court's attention to the fact that

claim 1 does not include any elements other than these, no mention is made of the discharges, or their location or their relationship to one another. All this claim defines is the means for weighing cement and means for weighing the aggregate. At this point the definition ceases, the claim ceases. It is believed obvious that the claim cannot possibly define any invention which might exist in the Johnson patent.

Claim 5 of the Johnson patent reads as follows:

"In a batching apparatus of the class described:

a main hopper to receive coarser aggregate material,

an auxiliary hopper to receive cement disposed so as to discharge the cement onto and into the coarser aggregate material.

discharge means for each of said hoppers,

the same being concentrically disposed and serving to produce commingling of the cement and coarser aggregate,

means whereby the quantity of the cement in the cement hopper and the quantity of coarser aggregates in the main hopper therefor may be accurately measured independently,

means for discharging each of said hoppers to effect the commingling action referred to as the aggregates pass from the hoppers flowing in a shaft-like stream while the hoppers are discharging, [82]

and instrumentalities to supply water to the flowing shaft of aggregates in a tubular stream

surrounding said aggregates and flowing into same at an angle thereto."

This claim is believed likewise to lack patentable invention for the second reason defined above under the discussion of claim 1. In other words, under the ruling of the Great A. & P. Tea Co. vs. Supermarket Equipment Corp., case and the other cases cited above, no result is obtainable other than mere aggregation of the results of individual elements. Defendant expects to establish at the trial that each and every element of this claim is old and that the particular arrangement set forth in the claim does not produce any new or different result.

Defendant likewise will establish at the trial that this claim has never been infringed. Defendant does not and never has built a cement batching apparatus wherein the discharge means are concentrically disposed in serving to produce comminging of the cement and coarser aggregate. Defendant's cementing apparatus consists of three hoppers positioned alongside of each other, the central hopper containing cement and being suspended from one scale, the other two hoppers containing aggregate material and being suspended from a second scale, in much the same manner as illustrated in the Robb patent No. 1,750,244. There is no concentric discharge. In this respect reference is made to Fig. 5 of the Johnson patent which shows a concentric discharge and shows what this language utilized in the claim means. It will be noted that the cement discharge is completely surrounded by the aggregate materials so that the cement discharge and aggregate dis-

charge are truly concentric. Defendant does not use this arrangement. In Defendant's arrangement the aggregate flows along one stream, then a stream of cement, then a second stream of aggregate. There is no concentric discharge and the functioning of Defendant's device is the same as the prior art. [83]

The second reason why there is no infringement is the last element or limitation thereof, which requires instrumentalities to supply water to the flowing shaft of aggregates in a tubular stream surrounding said aggregates and flowing into same at an angle thereto. Defendant has only once made any device which could remotely resemble this element. In all of the other batching apparatus of Defendant the water flows in the manner of the prior art and in an entirely different way from that described and defined in claim 5. In the sole instance where such arrangement was ever used it will be noted that Defendants were requested many times to put such a mechanism into an operative state and finally the purchaser of the batching apparatus became so disgusted that he ordered it removed and the water supplying apparatus similar to that used in the prior art was installed. Consequently, there is not at the present time and has not been for several years any apparatus manufactured by Defendant which could possibly by any stretch of the imagination fall within the definition of claim 5. It is again established law that where one omits an element of a claim that he does not infringe same. As stated by the Supreme Court in Cimiotti Unhairing Co., et al., vs. American Fur Refining Co., et al.

(1905), 198 US 399, 49 L. Ed. 1100 at page 410, "No one is an infringer of a combination claim unless he uses all of the elements thereof."

See also

Kay Patents Corp. vs. Martin Supply Co., (4th Cir. 1953), 202 Fed. 2d, 47;

U. S. Rubber Co. vs. General Tire & Rubber Co., (6th Cir. 1942), 128 Fed. 2d, 104;

Gardiner vs. Freed Heater, (3rd Cir. 1939), 107 Fed. 2d, 364.

There is no way that this Court can be asked to distort the claims of this patent to hold Defendant guilty of infringement thereof. In order that Defendant be held to have infringed claim 5 [84] of this patent it is necessary for the Court to wholly ignore the limitation above referred to concerning the tubular water discharge and completely ignore the limitation in the claim concerning the concentric discharges from the two hoppers.

The situation in this case is one where four of the claims of the patent will not and plaintiff knows they will not cover anything which Defendant has done, consequently, these claims were not asserted. The two claims which plaintiff asserts to be infringed are claims 1 and 5.

Claim 1 is clearly invalid as set forth above. Claim 5 is not only invalid for want of invention, but as will be established, it is clearly not infringed. Consequently, it is submitted that when all the evidence has been introduced, Defendant will be entitled to judgment.

There is one other facet in this case which Defendant believes never will be reached and that is the question of the measure of damages. It is plaintiff's contention apparently from its pre-trial memorandum that it is entitled to damages not on the patentable combination but on the whole plant in which such batching apparatus is installed. For the information of the Court the batching apparatus is a very small portion of a complete plant. The complete plant includes all the structural steel, the elevators and conveyors for raising the cement and aggregate onto the appropriate level, storage bins for storing such materials, conveyor systems for conveying the aggregate and cement from their storage bins to the hoppers, all of which is old in the art and has been manufactured and installed in every cement batching plant for many years. There is no theory by which this patent can be claimed to cover a complete batching plant. To so construe this patent and to allow damages on such a theory would be to extend the patent monopoly to cover an unpatented item, a practice constantly condemned. See:

Leitch Mfg. Co. vs. Barber,
302 US 458;
Ethyl Gasoline Corp. vs. U. S.,
309 US 436;
Morton Salt Co. vs. Suppiger,
314 US 488;
B. B. Chemical Co. vs. Ellis,
314 US 495;
Mercoid Corp. vs. Mid-Continent Inv. Co.,
320 US 661.

In this instance in the event there is a determination that the patent is valid and infringed, damages should be limited to the infringing structure, that is, the batching apparatus per se. Any inclusion of any of the other structure of the batching plant would in effect give the plaintiff monopoly above and beyond that which the Patent Office granted. In the event that the Court does make a finding of validity and infringement, it is requested that specific instructions be made concerning precisely what is to be included in the accounting. As stated above, however, it is believed that these proceedings will never get to this point, inasmuch as the claims of the patent are clearly invalid and it will be established at the trial of this action that Defendant does not infringe.

Respectfully submitted,

MERLE W. STROMBERG, et al.,
Defendant;

By /s/ R. DOUGLAS LYON,
Its Attorney.

Dated: March 7, 1956.

Affidavit of service by mail attached.

[Endorsed]: Filed March 7, 1956. [86]

[Title of District Court and Cause.]

REPLY TO DEFENDANT'S PRETRIAL MEMORANDUM

To the Honorable, the Judges of the United States

District Court in and for the Southern District of California, Central Division:

Defendant argues that claim 1 of the Johnson patent is fatally defective because there are no discharges and no cooperation of its elements. He recognizes, however, that the claim includes two hoppers, one within the other, and that in the Johnson patent the hoppers are shown and described as having discharge openings and gates. Defendant further quotes from the Graver vs. Linde case as follows:

> "The statute makes provision for specification separately from the claims and requires that the latter 'shall particularly point out and distinctly claim the part, [88] improvement, or combination which he claims as his invention or discovery.' Rev. Stat. Sec. 4888, as amended, 35 USCA Sec. 33, 9 FCA title 35, Sec. 33."

Johnson has done precisely this in his claim 1. He particularly pointed out and distinctly claimed the parts, improvement, or combination which he claimed as his invention. Disposing the auxiliary weigh hopper, which by the patentee's own dictionary comprising his disclosure, comprises the body, inlet and outlet means, within the aggregate weigh hopper, and providing separate weighing means for each hopper, was his invention and that is how he proceeded to claim it. Having described his novel batching apparatus, including the weigh hoppers, in detail in his specification; in the claim he particularly pointed out the very heart of the structure which he claimed as his invention. No one can be

left with doubt as to what was intended to be covered by the claim and certainly defendant has not shown that he has any difficulty understanding it.

As to an alleged absence of cooperation between the elements of claim 1, defendant's attempted analogy to a rubber-tipped pencil and its inability to have both ends used at the same time fails to recognize the cooperation of Johnson's hoppers which are adapted for simultaneous filling and simultaneous discharging. Defendant also fails to recognize the desirable results afforded by batching apparatus permitting the simultaneous discharge of the contents of hoppers one of which is within the other.

Infringement of claim 1 appears to have been conceded.

Defendant's assertion of non-infringement of claim 5 is contradicted by his own admissions, and also by the rather surprising admissions which appear on page 15 of his Pretrial Memorandum. The evidence, however, is the proper place to [89] determine these points, and not these briefs.

Dated March 9, 1956.

Respectfully submitted,

WILLIAM DOUGLAS SELLERS,
RICHARD L. GAUSEWITZ,
WILLIAM A. DENNY,
By /s/ W. D. SELLERS,
Attorneys for Plaintiff.

Affidavit of service by mail attached.

[Endorsed]: Filed March 12, 1956. [90]

United States District Court, Southern District of California, Central Division

Civil Action No. 17121-HW

C. S. JOHNSON COMPANY,

Plaintiff,

vs.

MERLE W. STROMBERG, d.b.a. CALIFORNIA BATCHING EQUIPMENT COMPANY, et al.,

Defendant.

FINDINGS OF FACT, CONCLUSIONS OF LAW AND JUDGMENT

Findings of Fact

1.

Plaintiff C. S. Johnson Company is a corporation duly organized and existing under and by virtue of the laws of the State of Illinois and has its principal place of business in Champaign, County of Champaign, State of Illinois.

2.

Defendant Merle W. Stromberg is an individual residing in Los Angeles County, doing business under the fictitious name and style of California Batching Equipment Co., and having regular and established places of business both in Los Angeles County and in Orange County, all in the Southern Judicial District of California, Central Division.

3.

The Court has jurisdiction of this action under the provisions of 28 USC 1338(a).

4.

Plaintiff is the owner of the entire right, title and interest in and to United States Letters Patent 2,138,172, issued November 29, 1938, for "Batching Apparatus."

5.

That the validity and infringement of claims 1 and 5 of United States Letters Patent 2,138,172 are in issue, the charge of infringement of the remaining claims having been withdrawn.

6.

That United States Letters Patent 2,138,172 relates to a batching apparatus characterized by a main hopper and an auxiliary hopper disposed within the main hopper with separate weighing mechanisms for each hopper.

7.

That prior to February 10, 1935, and more than two years prior to the filing of patent application Serial No. 125,167, which matured into United States Letters Patent 2,138,172, there was constructed and operated publicly, openly and for commercial purposes at 235 Alabama Street, San Francisco, California, a batching apparatus characterized by a main hopper and an auxiliary hopper disposed within the main hopper with separate weighing mechanisms for each hopper.

8.

That claim 1 of United States Letters Patent 2,138,172 fails to define any invention not embodied

in the batching apparatus at 235 Alabama Street, San Francisco, California. [95]

9.

That claim 5 of United States Letters Patent 2,138,172 fails to define any invention not embodied in the batching apparatus at 235 Alabama Street, San Francisco, California.

10.

The evidence establishes the existence of the apparatus at 235 Alabama Street, San Francisco, California, prior to February 10, 1935, and more than two years prior to the filing of patent application Serial No, 125,167, which matured into United States Letters Patent 2 138,172.

11.

The facts set forth in Finding 10 were fully corroborated and conclusively established beyond a reasonable doubt by the oral testimony of each of the witnesses Vernon Murasko, E. F. Cornett and Fred W. Bodinson.

12.

The facts set forth in Finding 10 were further conclusively established and fully corroborated by the documentary evidence exhibits A, F, G, H, I, J, K, L, M, N, O and P.

13.

The evidence establishes the construction and mode of operation of the apparatus at 235 Alabama Street, San Francisco, California, prior to February 10, 1935, and more than two years prior to the filing of patent application Serial No. 125,167, which

matured into United States Letters Patent 2,138,-172.

14.

The facts set forth in Finding 13 were fully corroborated and conclusively established beyond a reasonable doubt by the oral testimony of each of the witnesses Vernon Murasko, E. F. Cornett and Fred W. Bodinson. [94]

15.

The facts set forth in Finding 13 were further conclusively established and fully corroborated by the documentary evidence exhibits A, F, G, H, I, J, K, L, M, N, O and P.

16.

Claim 1 of United States Letters Patent 2,138,172 contains the following elements:

(a) a main hopper to receive aggregate material,

(b) an auxiliary hopper disposed within the main hopper,

(c) weighing mechanisms one for each hopper,

(d) and means for connecting the hoppers with the weighing mechanism therefor so that each hopper may move independently relatively to the other and the materials contained therein.

17.

The apparatus at 235 Alabama Street, San Francisco, California, prior to February 10, 1935, and more than two years prior to the filing of patent application Serial No. 125,167, which matured into United States Letters Patent 2,138,172, contained each of the elements a, b, c and d, set forth in Finding 16, which elements functioned together with the

same mode of operation to produce the same result as the apparatus defined by claim 1.

18.

Claim 5 of United States Letters Patent 2,138,172 contains the following elements:

(a) a main hopper to receive coarser aggregate material,

(b) an auxiliary hopper to receive cement disposed so as to discharge the cement onto and into the coarser aggregate material,

(c) discharge means for each of said hoppers, the same being concentrically disposed and serving to produce [95] commingling of the cement and coarser aggregate,

(d) means whereby the quantity of the cement in the cement hopper and the quantity of coarser aggregates in the main hopper therefor may be accurately measured independently,

(e) means for discharging each of said hoppers to effect the commingling action referred to as the aggregates pass from the hoppers flowing in a shaft-like stream while the hoppers are discharging,

(f) and instrumentalities to supply water to the flowing shaft of aggregates in a tubular stream surrounding said aggregates and flowing into same at an angle thereto.

19.

The apparatus at 235 Alabama Street, San Francisco, California, prior to February 10, 1935, and more than two years prior to the filing of patent application Serial No. 125,167, which matured into

United States Letters Patent 2,138,172, contained each of the elements a, b, c, d and e, set forth in Finding 18, which elements functioned together with the same mode of operation to produce the same result as the apparatus defined by claim 1.

20.

The addition of element (f) in Finding 18 to the apparatus defined by elements a, b, c, d and e, of Finding 18 would have been obvious at the time to a person having ordinary skill in the art.

21.

The addition of element (f) in Finding 18 to the apparatus defined by elements a, b, c, d and e, of Finding 18 did not involve invention. [96]

22.

Having had an opportunity to hear the testimony of the witness Vernon Murasko and observe his demeanor under direct and cross-examination, full credence is given his testimony.

23.

Having had an opportunity to hear the testimony of the witness E. F. Cornett and observe his demeanor under direct and cross-exmination, full credence is given his testimony.

24.

Having had an opportunity to hear the testimony of the witness Fred W. Bodinson and observe his demeanor under direct and cross-examination, full credence is given his testimony.

Conclusions of Law

I.

Claims 1 and 5 of Johnson patent 2,138,172 are invalid and void.

II.

A prior public use of the invention allegedly defined by claims 1 and 5 of Johnson patent 2,138,172 more than two years prior to the filing date of said patent has been established.

III.

Claims 1 and 5 of the Johnson patent 2,138,172 fail to define any invention over the prior public use established.

Judgment

In accordance with the foregoing Findings and Conclusions, It Is Ordered, Adjudged and Decreed:

1.

That claims 1 and 5 of C. S. Johnson patent 2,138,172 are invalid and void.

2.

That the Complaint herein be dismissed.

3.

That each party shall bear its own costs.

Dated this 18th day of May, 1956.

/s/ HARRY C. WESTOVER,
United States District Judge.

Affidavit of service by mail attached.

Lodged April 26, 1956.

[Endorsed]: Filed, docketed and entered May 18, 1956. [97]

[Title of District Court and Cause.]

NOTICE OF APPEAL

Notice is hereby given that C. S. Johnson Company, plaintiff above named, hereby appeals to the United States Court of Appeals for the Ninth Circuit from the Final Judgment entered in this action on the 18th day of May, 1956.

Dated: June 11, 1956.

Respectfully submitted,

/s/ RICHARD L. GAUSEWITZ.

[Endorsed]: Filed June 12, 1956. [98]

[Title of District Court and Cause.]

STATEMENT OF POINTS UPON WHICH PLAINTIFF APPELLANT INTENDS TO RELY ON APPEAL

1. The District Court erred in finding that prior to February 10, 1935, and more than two years prior to the filing of patent application Serial No. 125,167, which matured into United States Letters Patent 2,138,172, there was constructed and operated publicly, openly and for commercial purposes at 235 Alabama Street, San Francisco, California, a batching apparatus characterized by a main hopper and an auxiliary hopper disposed within the main hopper with separate weighing mechanisms for each hopper.

2. The District Court erred in finding that claim 1 of United States Letters Patent 2,138,172 fails to define any invention not [99] embodied in a batching apparatus at 235 Alabama Street, San Francisco, California.

3. The District Court erred in finding that claim 5 of United States Letters Patent, 2,138,172 fails to define any invention not embodied in a batching apparatus at 235 Alabama Street, San Francisco, California.

4. The District Court erred in finding that the evidence establishes the existence, construction, or mode of operation of an apparatus at 235 Alabama Street, San Francisco, California, prior to February 10, 1935, and more than two years prior to filing of patent application Serial No. 125,167, which matured into United States Letters Patent 2,138,172.

5. The District Court erred in finding that the existence, construction, or mode of operation of an apparatus at 235 Alabama Street, San Francisco, California, was conclusively established beyond a reasonable doubt by the oral testimony of each of the witnesses Vernon Murasco, E. F. Cornett and Fred W. Bodinson.

6. The District Court erred in finding that the existence, construction, or mode of operation of an apparatus at 235 Alabama Street, San Francisco, California, was conclusively established and fully corroborated by the documentary evidence exhibits A, F, G, H, I, J, K, L, M, N, O and P.

7. The District Court erred in finding that the elements of claim 1 of United States Letters Patent 2,138,172 were contained in an apparatus at 235 Alabama Street, San Francisco, California, prior to February 10, 1935, and more than two years prior to the filing of patent application Serial No. 125,167, which matured into United States Letters Patent 2,138,172, and in finding that the elements of said apparatus at 235 Alabama Street, San Francisco, California, functioned together with the same mode of operation to produce the same result as the apparatus defined by claim 1 of United States Letters Patent 2,138,172. [100]

8. The District Court erred in finding that an apparatus at 235 Alabama Street, San Francisco, California, prior to February 10, 1935, and more than two years prior to the filing of patent application Serial No. 125,167, which matured into United States Letters Patent 2,138,172, contained all of the elements of claim 5 of United States Letters Patent 2,138,172, excepting for "instrumentalities to supply water to the flowing shaft of aggregates in a tubular stream surrounding said aggregates and flowing into same at an angle thereto," and in finding that such elements functioned together with the same mode of operation to produce the same result as the apparatus defined by claim 1 of United States Letters Patent 2,138,172.

9. The District Court erred in finding that the addition of "instrumentalities to supply water to the flowing shaft of aggregates in a tubular stream surrounding said aggregates and flowing into same at

an angle thereto" to the elements allegedly present in the apparatus at 235 Alabama Street, San Francisco, California, would have been obvious at the time to a person having ordinary skill in the art, and did not involve invention.

10. The District Court erred in giving full credence to the testimony of each of the witnesses Vernon Murasco, E. F. Cornett and Fred W. Bodinson.

11. The District Court erred in holding claims 1 and 5 of Johnson Patent 2,138,172 invalid and void.

12. The District Court erred in holding that a prior public use of the invention defined by claims 1 and 5 of Patent 2,138,172 more than two years prior to the filing date of said patent has been established, and in holding that said claims 1 and 5 fail to define any invention over such prior public use.

13. The District Court erred in admitting into evidence, under 28 U.S.C. 1732, or any other law or rule, exhibits A, F, G, H, I, J, K, L, M, N, O, P allegedly relating to a concrete batching [101] apparatus allegedly constructed and operated at 235 Alabama Street, San Francisco, California.

14. The District Court erred in admitting any evidence relative to prior public use of the invention defined by claims 1 or 5 of Patent 2,138,172, and particularly relative to any plant located at 235 Alabama Street, San Francisco, California, despite the failure of Defendant to comply with the provisions of 35 U.S.C. 282.

15. The District Court erred in failing to find that the invention defined in United States Letters Patent 2,138,172 enjoyed great commercial success, and that the same is evidence of invention in the patented construction.

16. The District Court erred in failing to find that claim 1 of United States Letters Patent 2,138,172 is valid and infringed by Defendant.

17. The District Court erred in failing to find that claim 5 of United States Letters Patent 2,138,172 is valid and infringed by Defendant.

/s/ RICHARD L. GAUSEWITZ.

Affidavit of service by mail attached.

[Endorsed]: Filed August 10, 1956. [102]

[Title of District Court and Cause.]

ORDER

This cause having come before the Court on motion of plaintiff-appellant, it is hereby ordered that:

The time for the filing of the record on appeal and docketing of the appeal taken in the above-entitled case be and hereby is extended from August 20, 1956, to and including August 31, 1956, which is less than 90 days from the date the notice of appeal was filed.

Dated: August 10, 1956.

/s/ HARRY C. WESTOVER,
United States District Judge.

[Endorsed]: Filed August 10, 1956. [109]

In the United States District Court, Southern District of California, Central Division

No. 17,121-HW Civil

C. S. JOHNSON COMPANY,

Plaintiff,

vs.

MERLE W. STROMBERG, dba CALIFORNIA BATCHING EQUIPMENT CO., DOE I, DOE II, and DOE III,

Defendants.

Honorable Harry C. Westover, Judge Presiding.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Appearances:

For the Plaintiff:

WILLIAM D. SELLERS, ESQ.
WILLIAM A. DENNY, ESQ.

For the Defendants:

R. DOUGLAS LYON, ESQ.

March 13, 1956, 10:00 A.M.

The Clerk: No. 17,121-HW Civil, Johnson Company vs. Merle W. Stromberg and others, trial.

Mr. Sellers: Ready for the plaintiff, your Honor.

Mr. Lyon: Ready for the defendant.

The Court: You may proceed.

Mr. Sellers: May it please the court, as you know, this is a patent infringement action.

The Court: I have read the pleadings and I have read your trial memorandum and I am familiar with the issues involved, so proceed with the evidence.

Mr. Sellers: Well, in this case, your Honor, we have a batching plant, a patent directed to a batching plant.

May I interrupt myself to ask, you do want an opening statement, do you not?

The Court: Not at all. I am not interested in opening statements. I try these upon the evidence, not upon the statements of counsel. I know what the issues are.

Mr. Sellers: Then we will waive the opening statment, your Honor.

Mr. Wright, will you please take the stand? [3*]

PAUL S. WRIGHT

called as a witness by and on behalf of the plaintiff, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name, please?

The Witness: Paul S. Wright.

Direct Examination

By Mr. Sellers:

Q. What is your occupation, please, Mr. Wright?

*Page numbering appearing at top of page of original Reporter's Transcript of Record.

(Testimony of Paul S. Wright.)

A. I am a principal construction inspector-engineer.

Q. A what?

A. Principal construction inspector-engineer.

Q. By whom are you employed?

A. The Department of Public Works of the City of Los Angeles.

Q. Will you please let us have your background, Mr. Wright?

A. I have been continuously employed in this type of work for approximately 37 years. I first started this type of work in 1919, immediately after World War I. I was the first inspector employed by the City of Birmingham, Alabama, after the close of World War I when public works started up again after the war effort. I worked with the City of Birmingham for about one year. I was employed almost one year for the Pittsburgh Testing Laboratories in the same city. [4]

Q. Mr. Wright, will you please relate this experience of yours to the field of concrete and concrete batching equipment?

A. At that time there was no such thing as concrete batching equipment. My work was related to the mixing and laying of concrete.

I worked with the Southern Testing Laboratory in combination with the City of Birmingham in the latter part of the year 1921 and part of 1922.

I went back to the United States Navy for two years.

(Testimony of Paul S. Wright.)

In 1924, in the month of April, was employed by the City of Los Angeles, and that was 32 years ago. I became a construction inspector for the City of Los Angeles in the fall of 1924 and was made a senior construction inspector for the City of Los Angeles.

I went away to World War II in 1942, and in 1945, when I was discharged from World War II, I was re-employed by the City of Los Angeles and was put in charge of the manfacture of concrete, supervision of concrete plants and related types of work.

I believe that is a summary of my work.

Q. In your position as senior construction inspector for the City of Los Angeles; did you come in contact with concrete batching equipment?

A. Yes. From the advent of concrete batching plants, [5] I am familiar with the whole picture of the manufacture of concrete from 1919 to the present time.

Q. Will you please describe your connection with these plants in your background you have mentioned?

A. Well, I have for perhaps 50 per cent of the period that I have spoken of, I have been in charge of concrete batching plants, either volumetrically or by weight, whichever way the plant operated. There has been continuous inspection of that type of work.

Q. Do I understand you to say, Mr. Wright, that in your work for the City of Los Angeles since

(Testimony of Paul S. Wright.)

1924 as senior construction inspector, you have had charge of the inspecting of concrete batching plants in the City of Los Angeles?

A. Yes. About 30 per cent of my employment with the City of Los Angeles has either been as an inspector on plants, and since 1945 as supervisor over all the inspectors working on that type of work.

Q. And in your position, do you have any control over the operation of those plants and whether or not they have licenses to operate?

A. All of those plants work under the Department of Public Works in the City of Los Angeles, and fall under my supervision when they are working on city concrete work, all the inspectors.

As a matter of fact, the City of Los Angeles maintains [6] a list of approved plants. The plants are checked for compliance with the requirements of our specifications, and the approval of those plants and their right to operate on city contracts reposes solely with me.

Q. In that inspection work of which you have charge, do you inspect the individual plants as to the manner of their operation and as to their efficiency and as to their construction?

A. Yes. That is my duty in particular.

Q. At the present time how many plants are within your jurisdiction in this area?

A. There are 78 plants, ready-mixed concrete plants, approved to operate under the City of Los Angeles specifications at the present time.

(Testimony of Paul S. Wright.)

Q. Have you been invited at times to function as an expert in this field of concrete batching for the City of Los Angeles?

A. No. Only one time, in 1930, for about 15 minutes I was on the stand in relation to a small sidewalk job.

Q. Have you been invited to attend a meeting in the near future as representative of the City in this field?

A. Yes. I have been elected a member within the past year of the American Society of Testing Materials, Technical Committee C-9, wherein the specifications for this type of work are generated nationally. That is the most reliable [7] specification nationally of the American Society for Testing Materials.

Q. In your capacity as an inspector for the City of Los Angeles, have you come to have intimate knowledge of the various types of batching equipment and plants now on the market and now in use?

A. Yes, sir; not by name, but as general types of plants.

Q. Are you, Mr. Wright, familiar with the Johnson type of plant, by which I mean a plant in which the cement hopper is positioned physically within or between spaced portions of an aggregate hopper and in which the cement in the cement hopper and the aggregate in the aggregate hopper are separately weighed? A. Yes, sir.

Q. Are you familiar also with other types of batching plants which have different types of hopper arrangement? A. Yes, sir.

(Testimony of Paul S. Wright.)

Q. You have in your work as inspector for the City of Los Angeles also observed both the Johnson type of plant in operation and plants of the other types? A. Yes, sir.

Q. Will you please, in your own words, Mr. Wright, and concisely and briefly, state for the court just what a concrete batching plant is? [8]

A. A concrete batching plant is composed essentially of these parts. It must have bins for the storage of primary aggregates, mineral aggregates. Usually they are able to store three or four or perhaps even five types of primary aggregates.

They must have storage for storing cement, Portland cement.

They must have a means of proportioning these primary aggregates into weighing hoppers, weighing receptacles.

They must have means of discharging these receptacles into suitable mixing vehicles or mixers.

Q. Is it important that these plants weigh the various ingredients with accuracy?

A. Yes. That is extremely important. The integrity of the mix design must be preserved and it can only be preserved if these instrumentalities are of the highest quality, highest precision.

Q. Is the speed of the operation of the plant of importance?

A. Yes. Economically, it is very important that the plant be able to operate with a considerable degree of speed. In other words, if the plant can manufacture concrete at a higher rate of speed than

(Testimony of Paul S. Wright.)

perhaps another type of plant, it leads, from my point of view, to economy to reduce bid prices for that type of work, and I would say it is very important, [9] it is an important feature that the plant be able to manufacture concrete with considerable facility.

Q. In your opinion as an expert, Mr. Wright, is there any advantage in weighing the cement separately from the aggregates in making concrete?

A. Yes. I believe that is actually the only truly accurate way of measuring the cement, is in a separate weighing hopper.

Q. In addition to accuracy, is there any other advantage from the standpoint of cost?

Mr. Lyon: Could we have the question clarified? I am not sure I understand. Cost of what?

Mr. Sellers: Of the product.

Mr. Lyon: Of the cement?

Mr. Sellers: Yes.

The Witness: If the cement is weighed separately, that enables the plant to operate with a higher degree of speed and therefore with greater economy and lower production cost and, therefore, lower bid prices.

If you are able to weigh it separately, you can discharge your aggregate and cement simultaneously. In that feature lies most of the speed with which the plant can operate.

Mr. Lyon: Your Honor, may I object to the answer as not responsive? The question was how it affected the cost of the [10] ultimate product.

(Testimony of Paul S. Wright.)

The Court: Denied. May I ask a question?

Mr. Sellers: Surely.

The Court: Is there any way of determining the amount of sand, gravel and cement to be used other than by weighing?

The Witness: Shall I answer?

Mr. Sellers: Please answer.

The Witness: There are other methods of doing it, but they are considered antiquated now. They are not accurate means of proportioning materials, and they are antiquated as compared with the weighing method of proportioning material.

The Court: Is the weighing method the method that is universally used now?

The Witness: Almost universally used. I would say 99.04 per cent of our specifications that are written require measuring the material by weight.

Q. (By Mr. Sellers): Can you tell us, Mr. Wright, about the inherent flow characteristics of cement? That is, does it flow easily and readily like water, or does it tend to adhere to surfaces and clog up? Will you please tell the court about that?

The Court: Just a minute. You say cement. Are you limiting the question to the mixture after it has been mxed, or do you want to know about the flow of the material before it gets to the mixing bin? [11]

Mr. Sellers: Your Honor, if I may clarify it, the concrete comprises the cement and the aggregates which go into it, the sand, gravel, rock, and here I am particularly interested in the cement it-

(Testimony of Paul S. Wright.)

self, the one ingredient cement, as distinguished from the product concrete.

The Court: All right.

Mr. Sellers: Will you please read the question?

The Court: Read the question.

(Question read.)

The Court: You may answer.

The Witness: The flow characteristics of cement is the question I was asked? The cement does not flow very readily where it contacts any surface. It tends to adhere to surfaces, particularly at any angle points, or if its direction of flow is changed through conduits or if it has to turn corners, go down charging chutes, anything of that sort, it tends to adhere to those chutes and conduits.

Q. (By Mr. Sellers): In the concrete batching plants, does that characteristic give rise to problems of any importance?

A. Yes. I am continually confronted with types of plants, which, though they meet our minimum requirements of our specifications; at the same time they are not, in my opinion, ideal types of plants due to the cement hoppers being off to one side or somewhere off in a different part of the yard, [12] or something of that sort. I don't consider those types of methods of putting in the cement to be ideal. Those types of hoppers off to the side require vibrators be attached to shake the hopper at a very high frequency, and sometimes for long periods of

(Testimony of Paul S. Wright.)

time in order to get the cement discharged out of a hopper, and then it is a question whether you get it all in the mixture or not.

Q. It would be your opinion a short flow of cement into the aggregates for the mixture is the most desirable relationship?

A. That is the ideal way of discharging the cement.

Mr. Sellers: Your Honor, I think at this time I would like to show several pictures, if I may. One of these pictures relates to one of the plants here.

The Court: I have no objection to your showing the pictures.

Mr. Sellers: Thank you.

Mr. Lyon: Your Honor, could I at this time raise the question of whether you want a transcript of the proceedings?

The Court: I don't want a transcript. If you want to order it, it is up to you.

Mr. Lyon: It is just a question of whether or not it would be included as part of the costs in the event of——

Mr. Sellers: I am sorry, I didn't hear.

Mr. Lyon: I asked the court if he wanted a copy of the [13] transcript and he said no.

The Court: The transcript is for the use of the attorneys usually.

(A number of pictures were shown by slide.)

Q. (By Mr. Sellers): I would like to show you a copy of the patent here in suit.

(Testimony of Paul S. Wright.)

The Court: Before you do that, will you have it marked?

Mr. Sellers: That has been done, your Honor.

The Court: It has been marked?

Mr. Sellers: Yes.

The Clerk: The number is on it.

Mr. Sellers: Let the record show the various exhibits to which I will refer have been marked by the clerk.

The Court: Then will you refer to them according to the markings?

Mr. Sellers: As they are now marked for identification, your Honor. I am sorry I didn't say so.

The Clerk: Plaintiff's Exhibits 1 to 18 have been marked for identification, your Honor.

The Court: All right, they may be so marked.

(The exhibits referred to were marked Plaintiff's Exhibits 1 to 18 for identification.)

Mr. Sellers: May I give your Honor a soft copy of the same patent as Exhibit No. 10 for identification?

The Court: It is No. 10? [14]

Mr. Sellers: That is No. 10.

Q. (By Mr. Sellers): Mr. Wright, I have handed you a copy of Johnson Patent No. 2,138,172 involved in this action and which has been marked as Plaintiff's Exhibit 10 for identification. I ask you if you are familiar with that patent.

A. Yes, sir.

(Testimony of Paul S. Wright.)

Q. I also call your attention to Plaintiff's Exhibit No. 15 for identification.

Mr. Lyon: Your Honor, at this time may I inquire whether it is Mr. Sellers' intention to qualify this man as an expert in patents, or what?

Mr. Sellers: This man is an expert. We have attempted to qualify Mr. Wright as an expert in the field of concrete batching and equipment field.

Mr. Lyon: No effort is being made to qualify him as an expert in patent interpretation?

Mr. Sellers: Not on patents or patent interpretation; no.

Mr. Lyon: Thank you.

Mr. Sellers: On the other hand, he is qualified as an engineering expert and able to read engineering drawings, and we will not wish to estop ourselves from having him compare figures, for example.

Your Honor, I hand you a duplicate copy of Exhibit 15 so you may see it more readily. [15]

Q. (By Mr. Sellers): Mr. Wright, I call your attention to Exhibit No. 15 and ask you to compare the showing of the three figures in this drawing with Figs. 1, 2 and 3 of the Johnson patent here in suit.

A. Yes, sir. They appear to be quite identical.

Q. Will you please describe the construction disclosed in the Johnson patent for the benefit of the court, referring to Exhibit 15 for purpose of illustration?

A. May I leave the stand for that purpose?

(Testimony of Paul S. Wright.)

Mr. Sellers: May he, your Honor?

The Court: Yes.

Mr. Sellers: Thank you.

(Witness leaving stand.)

The Witness: This batching apparatus consists of primary storage bins colored in blue in the figure.

No. 1 in the figure is primary storage bins for the sand.

No. 3 is indicated as primary storage bins for the coarse aggregates.

In between the bins you see a cement screw housed into a housing numbered 12 in the drawing. The cement screw itself is No. 13. The charging portion of the cement hopper is numbered 14 in the drawing.

Below the primary aggregate bins in this particular drawing are indicated in brown just the housing or the working [16] platform, the cement scale No. 4 and aggregate scale No. 5.

In the center is the cement weigh hopper.

Now, in the drawing, referring to Fig. 2, you have the bin numbered 7 for proportioning aggregates, for the purpose of proportioning the aggregates. This bin is colored in in yellow. The cement bin itself, weighing cement, is colored in orange and is numbered 8.

Q. May I ask, are those commonly referred to as hoppers, rather than bins, Mr. Wright.

A. As hoppers; yes. Excuse me. Cement weighing hopper and the primary aggregate hopper.

(Testimony of Paul S. Wright.)

Now, the primary aggregate hopper and the cement weighing hopper, as will be shown in this drawing, are made to work completely and freely independent of each other because the cement hopper is situated in a compartment substantially in the center of the aggregate weighing hopper. This compartment is numbered 20 in your drawing.

These two devices, the primary aggregate hopper and the cement hopper, are connected by certain linkages and hangers to separate scales, to these two scales here, the cement scale No. 4 and the aggregate scale No. 5.

Now, when a batch of material is proportioned into these hoppers, the aggregate is proportioned through gates in the bottoms of the aggregate hoppers, indicated by the Figs. 11 at the bottom of each respective hopper. [17]

Simultaneously with the proportioning, the accumulative proportioning of each of these primary aggregates, the cement can be weighed at the same time in its separate hopper.

At the time the proportioning is completed, the cement is retained in that hopper by a gate numbered—no, it isn't indicated in this drawing. It is indicated in the Fig. 3 as No. 22 at the bottom of the cement weighing hopper. The aggregate is retained in the primary aggregate bin by a gate at the bottom of the aggregate hopper No. 23.

When the material is completely charged into the two hoppers, into the primary aggregate hopper and the cement hopper, the two hoppers can be re-

(Testimony of Paul S. Wright.)

leased co-ordinately or simultaneously and discharged simultaneously.

The cement hopper gate lies immediately above the primary aggregate hopper gate and the material falls vertically through the bottom of the primary aggregate hopper. As it does so, a flexible shroud at the bottom of the primary aggregate hopper swings aside and encloses a ring in the bottom of this compartment No. 20. This prevents dust from going up through the partition. That discharges into a thing not shown in this exhibit, in the collecting hopper at the bottom.

Q. Now, in this disclosure, and I am now referring to the items which are found in claim 1 of the patent, do you find in this, which is in a batching apparatus of the class described, in combination, do your find a main hopper to [18] receive aggregate material?

Will you point out the main hopper, please?

A. That is numbered in yellow, I mean disclosed in yellow in this drawing.

Q. What reference character does it bear?

A. No. 7.

Q. And do you find in this disclosure an auxiliary hopper disposed within the main hopper?

A. Yes, sir.

Q. And how would you indicate that?

A. I would indicate that as being colored in orange and numbered 8.

Q. Do you find weighing mechanisms, one for each hopper?

(Testimony of Paul S. Wright.)

A. Yes. The weighing mechanism isn't shown completely. The scales No. 4 is for the purpose of weighing the cement and the scales No. 4 is for the purpose of weighing cumulatively the primary aggregate. They are connected by conventional linkages and hangers, and so forth.

Q. And means for connecting the hoppers with the weighing mechanisms therefor so that each hopper may move independently relative of the other and the materials contained therein?

Mr. Lyon: May I object to that question? That is what the court is going to be called upon to decide. He is testifying in the language of the claim of the patent in suit. [19]

The Court: Isn't he asking the question in the words of the patent?

Mr. Lyon: Yes. That is the specific language of the claim in suit, your Honor.

The Court: Overruled.

Q. (By Mr. Sellers): Are the means which connect the hoppers with the weighing mechanism, are those the conventional means which you said would necessarily be employed?

A. Yes. Any conventional system of beams and linkages and fulcrums, and so forth, for connecting the aggregate hopper to its separate scale, its separate weighing device, and the cement, for connecting the cement to its particular registering device.

Mr. Sellers: Thank you. You may resume the stand.

(Witness resuming stand.)

(Testimony of Paul S. Wright.)

Q. (By Mr. Sellers): Mr. Wright, have you carefully examined the Stanton weigh batching plant located at Stanton, California, which we recently saw on the projection slide?

A. Yes. I visited that plant June 24, 1955.

The Court: What is this exhibit now?

Mr. Denny: 12, sir.

Q. (By Mr. Sellers): Mr. Wright, I call your attention to Exhibit No. 12 for identification, comprising a diagrammatic showing, and ask whether or not you can state of your own knowledge that the showing correctly illustrates [20] diagrammatically the construction of the Stanton plant which you have inspected? A. Yes, sir.

Q. I now call your attention to Exhibit No. 13 for identification and ask you if you can identify that, also, as correctly and accurately illustrating the Stanton concrete batching plant.

A. Yes, sir. That would depict that plant; yes.

Q. I now show you Plaintiff's Exhibit No. 14 for identification, and I ask if that also is an accurate diagrammatic showing of the plant at Stanton?

A. Yes, sir. I recognize that as a diagram of the apparatus in that plant.

Q. Now, referring to Plaintiff's Exhibits Nos. 12, 13 and 14 for identification, will you please describe the construction and operation of the Stanton plant with particular reference to these exhibits?

A. May I leave the stand again, please, your Honor?

(Testimony of Paul S. Wright.)

The Court: Yes.

Mr. Sellers: Yes.

(Witness leaving stand and going to chart.)

The Witness: We have again here the primary aggregate bins. Here is the bin for the sand and bin for gravel. Another one marked for sand. These bins are the primary aggregate bins. [21]

We have again the cement screw, the gates for measuring the material from the primary aggregates. The gate for the cement, for charging the cement hopper, weighing the cement; located here.

Q. (By Mr. Sellers): May I interrupt to ask you: You say for charging and weighing. Actually, are those not merely valves which control the flow of material from the bins downwardly for the purpose of weighing up a batch?

A. For the purpose of weighing up a batch; yes, sir.

Q. They are weighed later; are they not?

A. Yes. Weighed when they are in a hopper.

Q. So really this valve you just referred to is to retain——

A. They are just to retain the material in the bin until it is used.

Q. Thank you. Go ahead.

A. This represents the aggregate hopper.

Q. Now, may I interrupt again? Describe the construction, because "this" does not show upon the record. You might say the outer hopper comprises——

(Testimony of Paul S. Wright.)

A. The outer hopper comprises an aggregate hopper numbered in the Johnson drawing No. 7.

The inner hopper is a cement hopper and is made to operate perfectly freely and independently of this outer hopper, the aggregate hopper. They move separately and [22] independently upward and downward in their operations, with the loading of material into the hoppers, of course, through the conventional linkages to the scales. The weight of the cement and aggregate is indicated on the scales.

Now, when the material is charged into the hopper, weighed into the aggregate hopper, and when the cement has been weighed into the cement hopper, both of these gates are tripped at the same time, the gate on the bottom of the cement hopper and the gate on the bottom of the aggregate hopper, and the material goes into a collecting cone. The collecting cone somewhat retards the flow of those two materials. As the cement falls down through the aggregate, it tends to fill the voids in the coarse aggregates sliding out of the hopper.

As it flows into this collecting cone, the cone itself tends to somewhat retard the flow and it backs up into the collector cone a little bit, permitting a further intermingling of the cement into the voids in the coarse aggregate.

Around the out . . of this collector cone is a water chamber composed of another cone substantially on the outside, but it is actually a water chamber, which is connected over here to some con-

(Testimony of Paul S. Wright.)

venient water source, where water is charged into the chamber, the water chamber, while and during the batch is being discharged. It goes in there with considerable gravitative force or pressure and surrounds the bottom of this collecting cone with a tubular—water in a tubular form, [23] falling at an angle, going into the aggregates as they pass that point at an angle, and causing a consequent reduction in volume of the aggregates and cement involved.

If I may say so, aggregates normally have about 40 per cent void, that is, ungraded aggregates, and it is very desirable to reduce the volume of those voids in order to take the greatest advantage of the volumetric size of the mixing and transporting vehicle.

It is very desirable that there be a reduction in volume of shrinkage of these materials, so that the vehicle will haul them away.

Q. Would it, in your opinion, be a fact that as the cement is discharged from the cement hopper, the central hopper, down into the aggregates being discharged from the aggregate hopper portion upon both sides of the cement hopper, that the cement would intermingle with the aggregates and fill the voids? A. I believe that is true; yes.

Q. I refer you to Fig. 3, which is the lower left-hand figure on Exhibit No. 14 for identification, and ask you if, in your opinion, that is an accurate showing of the way the aggregates would collect around the bottom of the discharge.

(Testimony of Paul S. Wright.)

A. Yes, sir. I think that's right; yes.

The Court: I understand that this sand and gravel is not weighed before it gets into the [24] hopper.

The Witness: No, sir.

The Court: It is weighed after it gets into the hopper?

The Witness: That's right. The primary aggregates are—so that you will understand the true picture of the concrete science, your Honor, may I say that those aggregates are prepared with the utmost care. They are analyzed chemically. They are washed completely, they are graded to very precisive analyses, and they are then mathematically calculated to produce a maximum density grading by specification. That is generally specified by the purchaser.

The Court: Yes; but I am looking at your Exhibit 14, and you seem to have a sand and gravel bin or hopper on both sides.

Now, do you allow the sand and gravel to go into the hopper at the same time and weigh the two together?

The Witness: No, sir. Each one of these primary aggregates is weighed separately.

The Court: Before they get into the bin?

The Witness: No, sir. They are charged separately into the weighing hopper, one at a time.

Mr. Sellers: May I help, your Honor?

The Court: Yes.

Q. (By Mr. Sellers): Is it not a fact, Mr.

(Testimony of Paul S. Wright.)

Wright, that the bins marked sand, gravel, gravel and sand, are merely storage bins?

A. That's right. [25]

Q. For unweighed materials.

A. That's right, for the primary aggregates.

Q. And is it not also a fact that you merely open the gates at the bottom of those bins and permit the material to fall down into the aggregate hopper where it is weighed for the first time?

A. Usually.

The Court: Well, now, can I ask another question? The aggregate hopper, in the hopper do you have separate bins for sand, one for sand, one for gravel?

The Witness: In the storage bins up here, they are kept distinctly separate.

The Court: I know that, the storage bins, but when they come down to being weighed.

Mr. Sellers: No, your Honor. You have the outer hopper—I beg your pardon. You answer the question.

The Witness: I was going to say in my opinion it is almost immaterial whether there are any partitions separating the primary aggregates after they get down into the lower hopper. Normally the sand is weighed first and then the coarser aggregates are weighed later.

The Court: Then I understand the sand is put in first and weighed, and then you put in the coarser aggregates and weigh it again.

The Witness: Cumulative weighing; yes. [26]

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The Court: Cumulative weighing?

The Witness: Yes, sir.

The Court: All right. That's what I wanted to find out.

Mr. Sellers: Does your Honor understand that you pour in so much of the rock, weigh that, pour in so much sand, and weigh that on top of it?

The Court: No. It was the other way around, I understood.

Mr. Sellers: Well, it is either one.

The Court: It doesn't make any difference?

Mr. Sellers: No; it doesn't make any difference. The important thing is that the cement is weighed separately.

The Court: Yes; I understand.

Now, after you once get the sand and gravel down into the hopper and weighed, if you find out you have too much sand or too much gravel, is there any way of taking it out?

The Witness: Yes, sir. You can reject that batch, put a dump truck under it, and haul it away and do it over again.

Q. (By Mr. Sellers): I wonder if we shouldn't clarify the court's understanding by pointing out that actually what you do is set your beams and your scale so that—you first set those, and then you open your sleeves, your valves, rather, upon your bins, and then permit the amount to come in until it balances the setting you have. In other words, the dumping and weighing are simultaneous. You don't

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dump it in and then [27] weigh it to see how much you have there. You set it and then dump it.

Is that right, Mr. Wright?

A. Yes. And may I say this, this bin and the scale that weighs the aggregate, registers the weight of the aggregate, that scale might have a capacity of 20 or 25 thousand pounds. Normally, the way you specify the accuracy of that scale is to say that it shall be accurate within one-tenth of one per cent. Now, that is quite a range, that is quite a few pounds. In other words, there is some leeway in the accuracy with which that bin has to operate.

Also, it is customary to say that the cement scale shall weigh with an accuracy within one-tenth of one per cent, and it having to register a smaller amount of material, can be made a much more precise weighing device with a closer, that is, better, that is, more accurate definitions on the scale dial, and that cement can be weighed with a much higher degree of accuracy, and must be because one-tenth of one per cent accuracy on that scale gives a lot less leeway for mistakes than the one-tenth of one per cent inaccuracy allowed on this aggregate scale. It is very desirable that the cement should be weighed and discharged into the load just like it was designed by the engineers designing the mix.

The Court: Well, I notice it's 11:00 o'clock and we usually take a break at 11:00 o'clock. We will now take a [28] recess until 10 minutes after 11:00.

(Recess.)

(Testimony of Paul S. Wright.)

The Court: You may proceed.

Q. (By Mr. Sellers): Referring again to Plaintiff's Exhibit 14 for identification, Mr. Wright, just in order to be certain we have made ourselves clear to the court as to the manner in which the material, including the cement and the aggregate, are weighed in the weigh hopper, would you please describe for the court a typical weighing operation in making a particular batch of concrete?

A. May I leave the stand?

Q. Yes; you may.

A. (Witness going to board.) At the commencing of a batching operation, prior to doing anything else, the batch man sets up the weights required, either on separate beams for each primary aggregate, on the separate beams of a beam scale, or in this case on the dial of a dial scale.

For instance, if he wanted 4,500 pounds of sand, he would clip a mark on the side of the dial, and usually these dial scales have such a movable marker so that he could move to the 4,500 pound mark. If he then wanted 1,500 pounds of what we refer to as No. 4, but commonly known as pea gravel, he would make a mark cumulatively at 6,000 to indicate 4,500 pounds of sand, he wanted 4,500 pounds of sand, and next he was going to draw his pea gravel, 1,500 pounds of it, so the [29] next mark would be made on the dial at 6,000 pounds.

If the total batch were a four-yard batch of concrete, the total weight of aggregate would perhaps

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be 13,000 pounds, so that would make the next mark for his coarse gravel at the 13,000 pound mark.

Now, he has it set up on the dial scale to pull 4,500 pounds of sand, next 1,500 pounds of pea gravel, but the scale will register 6,000 pounds, and then pull 7,000 pounds of coarse aggregate, but the scale will register cumulatively 13,000 pounds.

The Court: Let me ask you a question. When you get the proper amount in the hopper, does it automatically turn off, or do you have to do that by manual procedure?

The Witness: I was going to proceed to describe that, your Honor.

The Court: All right.

Mr. Sellers: That comes next, your Honor.

The Witness: Now, for his cement he sets up 5,064 pounds, or whatever the amount of his cement, 564 pounds to the yard for, say, a four-yard load in the case I am describing, something in the nature of 2,250 pounds, a ton and a quarter, a long ton and a quarter of cement. He sets up 2,250 pounds on the dial of the cement scale.

Now, he will simultaneously start to charge, to fill these weighing hoppers with these materials. He will start his [30] cement screw going. He will open this gate and start the cement into the cement hopper, and the cement scale will start registering the weight of cement.

At the same time he will open the gate of his sand bin and start it going. He opens it fairly wide. In this case there is a clam shell closure on the

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bottom of this sand hopper. He will open it relatively wide, but when he sees the needle coming to the point where he wants to stop that weight, approaching the 4,500-pound mark on his scale, he will pinch this gate almost shut and dribble the flow of the balance of the material until he gets to the 4,500-pound mark on the scale and he will mark a sharp cut-off with some tolerance by the specifications, but it is done with a high degree of accuracy. He is watching his cement scale at the same time, but he will proceed then to, watching what the needle does, he will proceed then to pull his pea gravel. That might be in this bin here. He will watch the needle as it approaches the 6,000-pound mark, and as the needle approaches the 6,000-pound mark, he will again close these gates fairly close together and dribble the balance in that it takes to bring the needle to the exact 6,000-pound mark.

At about that time he will see that the cement needle is approaching the 2,250 pounds of cement that will be required, and he will perhaps cut that down to where he can shut the cement off at the 2,250-pound mark, make a closure of [31] the gate to where he can dribble the cement to where it hits the 2,250-pound mark on the cement scale, and then he will make a quick closure of the gate on the cement hopper, the cement storage bin.

Then he will weigh up his largest aggregate, what we call locally No. 3, but say it is graded from inch and a half in size down to No. 4 size, and he will open that gate relatively wide, permitting that ma-

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terial to flow quite rapidly into the bin. He will watch the needle move on around, and as the needle approaches the 13,000-pound mark, he will pinch the gates together fairly closed and dribble feed the last little bit of that coarse aggregate in so he can stop the needle at exactly 13,000 pounds.

Now, he has both the aggregate bin, the mineral aggregate bin, the cement, that is, the aggregate hopper, weighing hopper, the cement weighing hopper, filled with the proper amount of material to manufacture about four cubic yards of concrete.

Q. (By Mr. Sellers): And then what does he do?

A. When the amounts are properly proportioned into these weighing hoppers——

Q. By the means you have just described——

A. By the means I have just described, the operator trips the cement hopper, weigh hopper, he trips the gate on the cement weigh hopper, he trips the gate on the aggregate [32] weigh hopper, permitting this material to flow vertically down through the two aperatures toward the collecting cone that reposes underneath the weighing devices.

As the aggregates flow down, the Johnson device has a small vertical fin, vertical fins or vertical partition in the bottom part of this thing to cause the aggregates not to flow with great velocity crosswise and one cutting the other aggregate off, but to slow down the flow, and the aggregates hit these fins and slows down the flow, with some assistance, by the way, of the cement dropping vertically down, caus-

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ing both the cement and aggregate to drop vertically into this collector cone.

Normally, that won't go on through the collector cone; if it did, you wouldn't need the collector cone. It backs up a little bit in there and permits—during the free fall of these aggregates, the cement to partially fill the voids in the coarse aggregate, and then when the aggregate and cement is retarded somewhat in the collector cone, there are more of the voids in the coarse aggregate filled by the cement and there is a consequent reduction in volume of the entire mass. It takes perhaps 47.00 feet, cubic feet of aggregate and cement, loose, to compose 27 cubic feet of concrete.

Q. During that time, Mr. Wright, has water been coming out between the double walls of the cone to join around the shaft of material as it went downwardly? [33]

A. Yes. As I previously described, around the collector cone is this water chamber. It is a second cone outside of the collector cone made similarly, but with a space in between the two cones referred to in the Johnson patent as the water chamber device. The water chamber is connected to any convenient water source where a measured amount of water can go through the conduits into the water chamber and then under pressure or gravitative force it will go around through the water chamber and form a tubular water feed at the bottom of this chamber.

The water then will come out of this water chamber at an angle to the flow of the vertical fall of the

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mixed aggregates and cement. As it strikes the aggregates and cement in its vertical flow, there is a consequent reduction, what could be called a shrinkage in the volume of rock, sand and cement.

Mr. Sellers: In order that the court may get an idea of the magnitude, we are talking in terms of tons of material dropping into this outer bin and into the cement.

Q. Is that not right, Mr. Wright?

A. Tons, yes. Some are made much larger. The case I spoke of a moment ago was four yards.

Q. Yes.

A. It often is six or six and a half cubic yards.

Q. Yes. [34]

A. That is, will produce six or six and a half cubic yards of concrete. By volume it will be much more than that in loose aggregates.

Q. Referring now to Plaintiff's Exhibit No. 13 for identification, this illustrates, does it not, showing of the bins in the Stanton plant in a perspective manner? Can you so identify them for the benefit of the court? Correction, the hoppers, not the bins.

A. Yes. That is a representation of the way that plant is equipped in these respects.

Q. Will you please point out to the court the position of the cement hopper and the aggregate hopper?

A. The cement hopper is contained inside of this compartment. This is a compartment wall here, referred to in the drawings of the Johnson patent as No. 19. That portion of the wall is vertical, on each

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side of this compartment. The bottom portion is referred to in the drawings as 19-A. That is where it slopes away to the output of the batch when it is discharged toward the truck.

Inside of this compartment is the cement hopper, completely free of any connection whatsoever with the—the cement weighing hopper is completely free of any connection with the aggregate weighing hopper.

Q. That's fine. Thank you very much. You may come back to the stand. [35]

(Witness resuming stand.)

Q. Mr. Wright, I now call your attention to Plaintiff's Exhibit 16 for identification, and particularly to the figures which are up on the right-hand side of the exhibit, and ask if you recognize those as being the same as the figures in Plaintiff's Exhibit No. 12 for identification which you have previously identified? A. Let's see. No. 12?

Q. I beg your pardon. It should be No. 15. I beg your pardon. Not 12, but 15.

A. Yes, they are identical.

Q. I wish to reword the question. The figures on the left of Exhibit No. 16 for identification are identical to the figures on the left of Exhibit 15?

A. Yes. May I amend the answer I gave a few minutes ago on a drawing prior to this one? I am referring to the one we had on the board a few

Q. This one here, No. 13?

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A. Yes. I think perhaps I failed to give the court a complete description of this apparatus. I failed to state that in this device also is shown the scale connections, the separate scale connections, the suspensior to the cement weighing hopper, the separate scale connections and control to the aggregate weighing hopper, and also the collecting hopper [36] and the water chamber arrangement underneath the aggregate weigh hopper. I failed to clarify that.

Q. Thank you. Referring again to Plaintiff's Exhibit No. 16 for identification, I ask if you can state upon comparison that the right-hand figures in that Exhibit 16 for identification are identical, but reduced in size to Figs. 1 and 2 of the figures in Exhibit 14, which you previously described.

A. Yes, they are.

Q. Referring now to the two right-hand figures in Exhibit 16 for identification, they illustrate the Stanton ready-mix plant, do they not?

A. Yes, sir, that is so, yes.

Q. Now, in that construction do you find a main hopper to receive aggregate material?

A. Yes. That is depicted in yellow in this particular figure.

Q. Do you find an auxiliary hopper disclosed within the main hopper?

A. Yes. That is depicted in orange in the picture.

Q. Do you find a weighing mechanism, one for each hopper?

A. Yes. There is a scale connected by suitable hangers and beams and fulcrums, et cetera, to the

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aggregate weighing hopper. There is also a separate scale connected by [37] suitable conventional means to the cement weighing hopper.

Q. Are those means you just referred to the means for connecting the hoppers with the weighing mechanism therefor, so that each hopper may move independently relative to the other and the materials therein contained? A. Yes, sir.

Q. I now show you Plaintiff's Exhibit 17 for identification, which comprises a chart, and I ask you if you recognize the figures shown on the left, as the figures of the Johnson patent?

A. I will have to step down there to see.

Q. Yes.

A. Yes, sir, those are the figures of the Johnson patent.

Q. Do you in these figures find a main hopper to receive coarser aggregate material as called for in claim 5 of the patent?

A. The main hopper is shown in Fig. 2 here in yellow and numbered in the drawing No. 7.

Q. And do you find also an auxiliary hopper to receive cement disposed as to discharge the cement onto and into the coarser aggregate material?

A. Yes. That is depicted in both cases here in orange, in both of these figures, and is numbered 8.

Q. Do you find discharge means for each of the said [38] hoppers, the same being concentrically disposed and serving to produce commingling of the cement and coarser aggregate?

A. Yes, the discharge hopper for the cement is

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located at the bottom of the cement weighing hopper, and in the drawing is colored in green and numbered 22.

The discharge of the aggregate weighing hopper is located at the bottom of the aggregate weighing hopper and is colored in green and is No. 23.

Q. Do you find means for discharging each of said hoppers to effect the commingling action referred to as the aggregates pass from the hoppers going in a shaft-like stream while the hoppers are discharging?

A. Yes. On the right of Fig. 3, we see a manual lever numbered 24, connected to linkages No. 25 in the drawing, which in turn is connected to the gate No. 22 at the bottom of the cement weighing hopper.

In the case of the aggregate hopper, you have a lever No. 26, which is linked by conventional means of linkages, and so forth, to the bottom of the aggregate weighing hopper, and numbered in the drawing No. 23.

Q. And do you find instrumentalities to supply water to the flowing shaft of aggregate in a tubular stream surrounding said aggregates flowing into the same at an angle thereto?

A. Yes. In Fig. 1, No. 35, over on the right-hand side, [39] there indicates a water measuring tank. That part can be any conventional measuring device. In this case it is a water measuring tank. The water flowing out of the water measuring tank 35 through the conduits No. 36 and into the water chamber marked No. 34 in the drawings, that is, it

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reposes between the collecting hopper No. 30 and the outer shell No. 34.

Q. I now call your attention, Mr. Wright, to Plaintiff's Exhibit 18 for identification and ask if you recognize the figures upon the right-hand side of this exhibit to be illustrative of the Stanton plant which you have previously described.

A. Yes, sir.

Q. Do you find in the figures on the right in Exhibit 18 for identification a main hopper to receive coarser aggregate material?

A. Yes. That is colored in in yellow in this drawing, Fig. 1.

Q. And do you find an auxiliary hopper to receive cement disposed so as to discharge the cement onto and into the coarser aggregate material?

A. Yes. That is colored in orange in Fig. 1 of this exhibit.

Q. Do you find discharge means for each of said hoppers, the same being concentrically disposed and serving to produce a commingling of the cement and coarser aggregates? [40]

A. Yes, sir. I can't make out the colors there.

Q. The purple seems to be it.

A. The purple, I would say in the exhibit, the color of the gates for this cement discharging hopper is colored in purple, and the discharge of the aggregate hopper is obscured by the—what is shown in the next figure, No. 2.

Q. Do you find means whereby the quantity of the cement in the cement hopper and the quantity

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of coarser aggregates in the main hopper therefor may be accurately measured independently?

A. Yes. In Fig. 1, on the left side of Fig. 1 in this exhibit is indicated two dial scale arrangements. The lower one colored in brown is connected by a conventional means of linkages, hangers, and so forth, to the cement weighing hopper. The upper one colored in brown or the other dial scale colored in brown is independently connected by suitable conventional means to the aggregate weighing hopper.

Q. Do you find means for discharging each of said hoppers to effect the commingling action referred to as the aggregates pass from the hoppers?

A. Yes, indicated in the drawings are the discharge gates of these weighing hoppers.

Q. And do you find instrumentalities to supply water to the flowing shaft of aggregates in a tubular stream surrounding said aggregates and flowing into same at an angle [41] thereto?

A. Yes. In Fig. 2 is indicated a convenient water connection on the right side of the collector hopper water connection, and again I can't make that color out. It appears to be blue. Is that blue or green? It is colored blue. To the water chamber for the purpose of adding water to the water chamber, during the flow of the aggregates, the cement and aggregates into the mixing machine.

Q. It is a fact, is it not, that in that Stanton plant that you have referred to, the cement hopper is within the aggregate hopper? A. Yes, sir.

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Q. Is that type of arrangement found in any other plants than Johnson plants, to your knowledge?

A. I don't exactly understand your question.

Q. Is that type of arrangement of the cement hopper within the aggregate hopper, is that an arrangement characteristic of Johnson type plants as distinguished from plants of other manufacturers?

A. According to the drawings and the patent, it seems to be a distinguishing feature of the Johnson patent, yes, sir.

Q. Is it not a fact that your cement batching plants which we have seen in the picture and which we have been talking about, are frequently several stories high, they extend up into the air a matter of several stories? [42]

A. Yes. Generally on three or four elevations. The ground is one elevation and perhaps there is an elevation for adding admixtures to the concrete. The next elevation will be a working platform where the operator works that pulls the levers and operates the plant. Perhaps there is another catwalk up on top of the plant for the purpose of someone going up there and checking the aggregates or seeing that the aggregates are stored in their individual bins that they are intended for.

Q. Is it or is it not a fact that these plants are frequently located in exposed positions where they are subjected to the wind?

A. Yes, sir. That is quite often true.

Q. Will you please explain what happens to the

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cement in a concrete batching plant where it is exposed to a windy condition?

A. Well, in quite a number of places, if there is any gap—if the cement is off to one side and has to come down a chute, for instance, exposed to the air, or there is a conduit from the side and the concrete goes into a pocket arrangement, or something of that sort, any place where the wind can get to it, it blows considerable of the cement away. It doesn't get into the mixture at all.

Q. Is it or is it not a fact in the Johnson type plant the cement is protected by the flow of the aggregates? [43]

A. Yes. The aggregates surround the flow of the cement as it drops vertically through those two weigh hoppers, and there is no blowing away of the cement. However, there is an intermingling of the cement with the aggregates as the whole mass goes downward.

Q. Would you say that the relationship of the aggregates protects the cement in the Johnson type cement batching plant?

A. Yes. I would say that is true because I have observed no instance where a plant that operates in this manner has a loss of cement due to the wind blowing, or anything of that sort.

Q. Is it a fact, however, that you have found it necessary at times to close down plants other than the Johnson type because of windy conditions?

A. Oh, yes. That has occurred in numerous occasions in the past where there would be some open

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chute, as I say, where a chute comes down from a weigh hopper on the side of the aggregate bin and down to the collecting hopper, or where a conduit, a closed conduit would come from the cement hopper down to the collecting hopper, and if it was exposed to the wind at all and the cement were blown away, I would consider that to be inaccurate measuring at that moment while the wind was blowing at that velocity and would be upsetting the design of the mixture and upsetting the strength expectation [44] of that mixture, and I would stop that operation.

Q. Is it fair to say that in the fall of the aggregates with the cement in the Johnson type plant, there is a premixture of the two?

A. Yes. To a considerable measure there is an intermingling of the rock, sand and cement as it falls through those hoppers into the collecting cone.

Q. Is that desirable or undesirable, in your opinion?

A. That is highly desirable in order to effect a reduction in the volume in the cubic volume of the loose rock and sand, materials and cement. It would be referred to as a pre-shrinkage of the aggregates and cement. It is very desirable for the reason that concrete, ready-mixed trucks, if they are charged with such a great volume of loose material in which the voids have not been reduced, it is possible for material to back up out of there and out of the collecting hopper and spill all over the place. There would be a great deal of spillage and inaccuracy.

If there is a pre-shrinkage and you have shrunk

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the cubic volume to some considerable extent with the rock, sand and cement, then it will more readily go into the truck and it will go in in a more homogeneous condition to where the mixing time required later on will be considerably shortened. The mix can be more readily made and it will stay mixed and not segregate. It will help to prevent segregation of the [45] large and coarse aggregates in the mixing equipment.

Q. Do you ever encounter what is known as balling up in the mix truck where the cement and the aggregates are not properly brought in?

A. Yes. Where the cement is added separately off in a different part of the yard, where the cement is weighed in a different part of the yard from where the aggregates are proportioned, or where the cement hopper is off to one side and it joins the flow of the aggregates, the stream of aggregates into the mixing, charging hopper arrangement, the charging chute, is added in a ribbon of cement on top of that, as I said earlier on the stand, any time cement touches a surface, it tends to adhere and it will adhere to the inside of the ready-mixed trucks if it can get to it. In other words, as cement by itself gets to the inside of the drum of the truck and the mixing bins and the other areas of the truck, it will stick to, gum up and ball up on the inside of the truck.

Sometimes that will cause the necessity for adding, in a four and a half yard load of concrete, maybe 40 to 45 additional gallons of water to knock

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it loose, and when you do that, you have upset your water-cement ratio and greatly weakened the concrete.

Q. Is it a fact that with the cement positioned within the stream of the aggregates, the likelihood of that balling up is greatly reduced? [46]

A. Yes, because you have a fairly homogeneous mixture of your rock, sand and cement. Almost, it is the form that will finally, each part of the aggregate is almost in the form it will finally assume in the concrete mass when it becomes concrete. In other words, homogeneous. The aggregate and sand are fairly well distributed throughout—the particles in among themselves have a good distribution.

Q. Mr. Wright, as an expert in this field, do you have an opinion concerning the relative merits of the Johnson type plant, by which I mean the plant of the type illustrated in the patent, as compared to other types of concrete plants now in use?

Mr. Lyon: Your Honor, I object to that. If he wants to compare to some specific plant now in use, that's all right.

The Court: He is trying to say this is the best plant on the market. Overruled. Do you remember the question?

The Witness: Yes.

Q. (By Mr. Sellers): Please answer.

A. I, of course, encounter all types of plants. As I said, there are 78 plants approved to operate under the specifications of the City of Los Angeles and necessarily those belong to a great many differ-

(Testimony of Paul S. Wright.)

ent companies and have had a great many different people's ideas exercised in their set-up, in their manufacture and set-up. So I encounter every sort of a device. If the plant meets the minimum requirements of our [47] specifications which say that cement shall be weighed in a separate weighing hopper—our specifications only say it must be weighed in a cement weighing hopper, and that if the amount of concrete required is more than 25 cubic yards in the project, the rock, sand and cement shall be measured by weighing. So if the plant meets the minimum standards of those specifications, I approve it for use.

In other words, I stretch my generosity as far as I can to accept the thing, but bearing in mind all the time that if it is a minimum standard plant, it will require considerably more watching and care on the part of myself and the inspectors to see that all of these things are done in a high-class manner, the cement is completely hoppered, freely and completely discharges its batch of cement into the load, that there is no loss of aggregates, no inaccuracy in weighing, there is no loss of cement from being blown away, or spillage or backing up out of the truck, charging hopper arrangement, spilling on the ground, that everything is done completely, as completely as possible to maintain the integrity of that mix designed by the engineer or the inspector that I have assigned to that work.

So it will take considerable watching in some of these types of plants, and I think, though, that the

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Johnson plant, that this thing is the ideal, it is the ultimate type of thing. I can't conceive of anything being done to improve [48] that type of apparatus where the cement weighing device is enabled to move freely and independently of the aggregate hopper within the compartment, within the aggregate hopper, and where the cement and aggregate can be weighed separately, and where they can be charged simultaneously, and all of these various advantages of that device. I don't think there can be or will be any great improvement over that in the future.

The Court: May I ask the witness a question?

The Witness: Yes, sir.

The Court: You said that you worked as an engineer for the Department of Public Works. Is that for the County or City?

The Witness: The City of Los Angeles.

The Court: Then within the city, within your jurisdiction, how many of these batching plants do you observe?

The Witness: There are 78 approved under our specifications.

The Court: 78?

The Witness: I have personally approved 78 plants to operate for the City of Los Angeles. Every day, each working day, there are probably 35 or 40 of these plants operating on city contracts, producing material for perhaps 55 or 60 different projects. A lot of plants will take care of two or three projects.

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The Court: You have got 78. How many are Johnson plants? [49]

The Witness: I couldn't answer that question. My work requires I move from one to the other with such rapidity that my memory fails me as to how many. There are quite a few operating on that principle.

The Court: You are trying to tell me that the Johnson plants are the ultimate, the best plants, the best arrangement. I want to know if you can tell me what is the proportion of Johnson plants. Is it a half? Is it two-thirds? Or is it 10 per cent?

The Witness: I cannot say precisely. We do not specify the Johnson plant. I would say perhaps, oh, perhaps 25 per cent of them are of that type of plant.

The Court: And 75 per cent are of a different type?

The Witness: All sorts of plants.

The Court: All right.

Q. (By Mr. Sellers): Mr. Wright, can you state whether or not it was or was not conventional and common practice to connect the hopper through suitable levers and linkages to a scale in a weigh batching plant prior to the year 1937?

A. No. I don't know precisely the time. There has been a great evolution in the concrete batching arrangements.

Mr. Lyon: May I have the question again?

Mr. Sellers: Let me restate the question.

Q. Was it or was it not conventional and common practice to connect a hopper through suitable

(Testimony of Paul S. Wright.)

levers and linkages to a [50] scale in a weigh batching plant prior to the year 1937?

A. Yes. That is conventional.

Q. I merely want to know, if you have got a scale here and a weigh hopper here, was it conventional to connect the hopper to the scale? A. Yes.

Q. Prior to 1937? A. Yes.

The Court: Before 1937?

The Witness: Yes.

Q. (By Mr. Sellers): Now, referring to Fig. 3 of the Johnson patent shown in Exhibit 15 for identification, we see the hopper 7 suspended by links or rods 9 from levers 10. Would you say any particular problem would be presented in connecting the hopper 7 through the links 9 and lever 10 to a weighing scale?

A. No. That is all conventional. That sort of thing is done by conventional means, hangers and supports, fulcrums, et cetera.

Mr. Lyon: Your Honor, may I object to this line of questioning? This man is qualified as an expert in cement mixtures, but not as a mechanical expert. There is no showing whatsoever he has ever built one of these plants or operated one of them. You are taking him into a question of whether or not the disclosure of your patent is adequate and [51] whether or not somebody skilled in the art would know whether you could do this.

Mr. Sellers: I agree we have qualified Mr. Wright as an expert in the field of concrete batching plants, your Honor.

(Testimony of Paul S. Wright.)

The Court: Well, that is true, but is he qualified to read a patent?

Mr. Sellers: I am not asking him that, your Honor. I am asking him whether or not he knew prior to a certain date if it was conventional to do certain things. I didn't refer to the patent. I merely asked him whether or not it was conventional prior to a certain date to connect a scale over here to a hopper over here.

Mr. Lyon: There is no showing this man has any knowledge of how to connect a scale to a hopper or has ever done so.

The Court: Do I understand the problem, and correct me now, is that none of the apparatus and none of the scales and none of the beams and none of the hoppers is claimed to be invented, that Johnson took everything that was already invented in the public domain, and created this particular arrangement? Is that correct?

Mr. Sellers: That is substantially correct, but I would like to say it this way, your Honor. Mr. Johnson certainly did not invent a scale. He certainly didn't invent a hopper by itself, and he certainly did not invent the connection of the scale to the hopper. [52]

My question to Mr. Wright was merely to establish the fact that those things were conventional prior to 1937.

The Court: I think you can get a stipulation, if you want it.

Mr. Sellers: Well, I think so, too.

(Testimony of Paul S. Wright.)

The Court: Everything that was used here was used prior to 1937.

Mr. Lyon: So stipulated.

The Court: All they did was take something that was used that was in the public domain and associate it together in a different relationship to get a different result.

Mr. Sellers: No, your Honor. You are going further than I have in mind and, I hope, further than you will go in your decision. The point I am making is, given one hopper and given one scale, that no invention is required to connect the scale to the hopper. I don't want to go beyond that. May I explain my reasons?

The Court: If there was no invention with one hopper and one scale, there couldn't be an invention with two hoppers and two scales.

Mr. Sellers: Oh, very definitely. If you obtain a new and desirable result which was not obtained before, which is what was done here. You see, your Honor, it was old to have hoppers. We don't contend we were the first to use a hopper. It was old to provide scales. We don't contend that we did [53] that first.

But we were the first, Mr. Johnson was the first to have an aggregate hopper and to position the cement hopper within the aggregate hopper and to discharge the cement from the cement hopper down into the flow of aggregate from the aggregate hopper, and to get this pre-mixture relationship, the protection of the cement, and the independent

(Testimony of Paul S. Wright.)

weighing of the cement within the aggregate hopper, and the independent weighing of the aggregate in the aggregate hopper.

The Court: As I understood one of the questions you put to the witness a moment ago, prior to 1937 a hopper was connected with a scale.

Mr. Sellers: Very definitely.

The Court: So you have a way of measuring the contents of the hopper?

Mr. Sellers: That's right.

The Court: Before 1937.

Mr. Sellers: That's right.

The Court: Now, do you claim as your invention here the fact that you took the cement hopper or a cement container and put it in the middle? Is that your invention?

Mr. Sellers: Your Honor, that is one of the basic features of the invention, yes, your Honor. Before the invention by Mr. Johnson, it was old to position the cement hopper off to the side or somewhere rather than between the inside of the concrete [54] hopper—I mean, correction, inside of the aggregate hopper.

The Court: Now, supposing that I have, before 1937, supposing we have a plant that mixed concrete batches and they had a storage for gravel over here and a storage for cement over here, and a storage for cement there, in three different locations. Now, do you claim it is invention to bring them all together, put them close together in the one building?

(Testimony of Paul S. Wright.)

Mr. Sellers: With independent weighing, yes, your Honor.

The Court: You claim that is invention?

Mr. Sellers: And to direct your flow of cement right down into the center of the flow of the aggregates, where that had never been done before.

The Court: You are going beyond me now. I am only limiting it to this. Is it invention to bring these three together?

Mr. Sellers: I would want to know whether you have got a new result from this device you are bringing together, your Honor.

The Court: I am bringing them closer so I don't have to cart them from one part of the yard over to a central place.

Mr. Sellers: Merely decreasing the distance in itself would not be invention without some new result, I would say.

The Court: Would it be inventive to take it from three houses or three bins and put it into one bin with three containers? [55] Would that be invention?

Mr. Sellers: If you arrange it so that your aggregate discharge was positioned around and in co-operative relationship around the central cement flow so that you obtain the pre-mixture and the protection of the cement, yes.

The Court: You are going too fast for me now.

Mr. Sellers: I don't know what you are doing, your Honor.

(Testimony of Paul S. Wright.)

The Court: Suppose we brought these together. These three buildings are on the ground.

Mr. Sellers: Yes, your Honor.

The Court: Four or five inches from the ground. You bring them together. You bring them into one building, put them in one building. Instead of having three buildings, you have one building with three compartments.

Mr. Sellers: Yes.

The Court: Now, is it invention to raise the building 20 or 30 feet?

Mr. Sellers: No. Raising the building was old, we will agree to that.

The Court: Now you bring it over and put it in one building and raise it. Now you make arrangements for the contents of these three compartments to be discharged into a general container for all three of them. Is there any invention in that in itself? [56]

Mr. Sellers: Will one of the three be cement, your Honor?

The Court: No.

Mr. Sellers: Just other than cement?

The Court: Sand, gravel and cement, just that arrangement. Is there any invention in that?

Mr. Sellers: Combining the aggregates into one hopper, I would not contend there was invention.

The Court: Your invention is that you put the cement in the middle so that when the sand and the gravel went down, the cement could go down at the same time and be mixed.

(Testimony of Paul S. Wright.)

Mr. Sellers: In the center of it and be mixed, yes, your Honor.

The Court: Is that the invention?

Mr. Sellers: You might say you have put your finger on the nub of it, the simultaneous discharge, the weighing, the positioning of the hopper inside—no one positioned it inside and weighed it independently, your Honor, and at the same time had the advantage of the concentric discharge down through the aggregates.

The Court: Now, the testimony also indicates that as this mixture goes down, water is added.

Mr. Sellers: That's right.

The Court: Is that an invention?

Mr. Sellers: No, your Honor. Water had been added before, [57] but in our claim 5, you will notice it is brought in there around the concentric discharge of the aggregate around the cement.

The Court: Can you claim invention because instead of going in with one hose, it goes around and is discharged in many places instead of one place?

Mr. Sellers: Your Honor, we brought that in at the gathering hopper. We added it around the surface, the exterior surface of the discharging stream, and attempted to obtain our wetting effect at the same time we obtained the pre-mixing and the shrinkage. No one had done that before, your Honor. You see, it is not a matter of taking these buildings and bringing them together. That is misleading. Because what we did, we obtained a new

(Testimony of Paul S. Wright.)

result no one had obtained before. The prior art patent which unquestionably counsel will——

The Court: Well, I don't know whether you have obtained new results or not, because the testimony of this witness is that there are 75 batching plants under his supervision and only 25 per cent use the Johnson and the other 75 per cent use another process, and evidently get the same result, approximately the same result.

Mr. Sellers: Your Honor, this patent dates back many years. The Johnson plant, if I may add something, Johnson has made his plants up to a recent time at a distance, and there was a price differential, and there were possibly other things [58] than just structure alone that determined how many are here.

In other words, because Johnson doesn't dominate the market in terms of number, you can't conclude that therefore it is not the best. If Johnson's plant is made in the East and has to be shipped out and sold at a price differential, and we still have a third of the business, believe me, we have done a very good job, because we have gained even that percentage by virtue of superiority.

Also, I might ask your Honor if it isn't better than the other type, why do we have someone copying it? There is the complimentary result right there. If they are free to use the others, why do they use ours? The testimony will show there is a general acceptance of our plant and the people want it.

(Testimony of Paul S. Wright.)

The Court: The nub of the question, as I get it, is the fact that you put the cement bin——

Mr. Sellers: The hopper, your Honor.

The Court: The hopper is in the middle so that when it is discharged down into the general container, the general hopper, that the cement was allowed to mix with the aggregate.

Mr. Sellers: In the center of it, and may I rephrase your wording a bit, your Honor?

The Court: I am not an expert. You are the expert.

Mr. Sellers: You put the cement hopper, your Honor, inside the aggregate hopper. You independently weigh, not only [59] the outer hopper, but also the inner hopper. No one before had weighed an inside hopper independently of the outer hopper. They had brought these elements together, put them all in one bin, and then weighed them cumulatively, as you have heard the witness explain, by setting the scale; adding so much, setting the scale again, or, rather, having another setting, and going to that. That is cumulative weight. That is no good from the standpoint of accuracy. Where you are weighing cement you want to be efficient, you want to save on cost, you want to be accurate.

The Court: You mean at no time under no condition was there a weighing of material inside of material?

Mr. Sellers: Not in an independently movable inside cement hopper.

The Court: Forget about the cement hopper. In

(Testimony of Paul S. Wright.)

any way, was there any weighing inside of any kind?

Mr. Sellers: I don't believe I would want to make a statement regarding the art that might not be analogous, your Honor. I don't know what to reply. Inside of anything, I don't know.

The Court: You have got your cement hopper over in the center of these aggregates.

Mr. Sellers: That's right.

The Court: You have got it so it can be weighed.

Mr. Sellers: That's right. [60]

The Court: And you say that is new?

Mr. Sellers: That's right.

The Court: Now, I am asking you, at any other time on any other material, I don't care whether it is cement, sand, gravel—it might be oil, it might be other chemicals—but at any time was it necessary to weigh a material inside of another material that was being weighed?

Mr. Sellers: I am not aware of any construction in analogous art that did that and obtained our results, your Honor.

The Court: The only result I am talking about is the weighing.

Mr. Sellers: I understand.

The Court: That is the only thing right now, not the mixing, but the weighing.

Mr. Sellers: I am not able to answer.

The Court: You claim that to be new?

Mr. Sellers: I don't want to go on record as saying that by itself, your Honor, is new. I think we

(Testimony of Paul S. Wright.)

have a combination of features. I will say in a concrete batching plant it is new. Whether or not it is new outside of the field in which we are interested, I am unable to answer that question.

The Court: Let me ask you this. I don't know whether this is so or not. I am just asking the question. Supposing that this weighing of material inside of another material, [61] weighing of a liquid inside of another liquid, had been used and was common practice in another industry. The fact that you took that and applied it to the cement industry; is that invention?

Mr. Sellers: I would want to know what the other industry was, what the purpose was, what the problems were, before I could answer that, your Honor. I don't know, the way you put it. As an expert in the field of patents, I don't feel qualified to answer that, because whether it requires invention to go from one thing to another is a question of fact in each case. Unless you tell me where you were before, I can't tell you whether it took invention to get where we are now.

The Court: Suppose you had developed and you had a patent on the refining of glass. I guess glass is refined. I don't know.

Mr. Sellers: Yes.

The Court: I went over and looked at it. I said, "Well, that can be used not only in glass, but in the refining of gold."

So I take your refining of glass and transport it into the refining of gold. Supposing your patent has

(Testimony of Paul S. Wright.)

run out, but I transfer the procedure from glass to gold. Is that invention?

Mr. Sellers: It might be, your Honor.

The Court: I don't know. I am asking for information. [62]

Mr. Sellers: I don't know, either. If I did, I would tell you. But in my opinion whether it is invention or not depends on what the problems were in the one field and in the other. The mere fact that the structures are alike doesn't influence me particularly, because there are many things that are generally alike, but in so distantly related fields that one does not anticipate the other, and when you say glass field and gold field, I, your Honor, don't know either one of those.

Whether the problems of one are sufficiently close to the problems of another so that the transfer from one field to the other is non-inventive, I don't know, and I don't believe we can come to a conclusion on that without knowing more facts.

The Court: All right. But you do say to me, as far as you know, this was the first time that in the cement industry the cement was weighed inside the other aggregates.

Mr. Sellers: On an independently movable——

The Court: On an independent scale.

Mr. Sellers: Independently movable hopper, yes, your Honor.

The Court: The first time?

Mr. Sellers: To the best of my knowledge, this is the first time anyone positioned an independently

(Testimony of Paul S. Wright.)

movable hopper inside an aggregate hopper and weighed the two hoppers independently. [63]

The Court: Well, I notice it's 12:00 o'clock. We will take our noon recess. Court will stand in recess until 2:00 o'clock.

(Thereupon, a recess was taken to 2:00 o'clock, p.m.) [64]

March 13, 1956—2:00 P.M.

The Clerk: C. S. Johnson vs. Merle W. Stromberg, further trial.

The Court: You may proceed.

Mr. Sellers: Please take the stand, Mr. Wright.

PAUL S. WRIGHT

the witness on the stand at the time of the recess, having been previously duly sworn, was examined and testified further as follows:

Direct Examination
(Continued)

By Mr. Sellers:

Q. Mr. Wright, in your opinion, does the term hopper have an established meaning in the concrete batching field? A. Yes, sir.

Q. What does it mean?

A. I would say it means a receptacle that has a means of being charged. It has an outlet and has a controlled means in the outlet.

(Testimony of Paul S. Wright.)

Q. In the term hopper, an outlet is necessarily included to be of operative construction?

A. Sir?

Q. In the term hopper is an outlet necessarily included in order for the hopper to be operated? [65]

A. Yes. That is an essential part of the hopper, yes.

Q. You have in your experience, Mr. Wright, seen a great many concrete batching plants in operation? A. Yes, sir.

Q. Those plants have been both the Johnson type and other types, have they?

A. Yes, sir. They have been of various types and makes, methods of operation, and so forth.

Mr. Sellers: Your Honor, at this time I would like to read into the record certain stipulations that have been entered into by the parties, if I may.

The Court: All right.

Mr. Sellers: It has been stipulated by and between the parties C. S. Johnson Company and Merle W. Stromberg, dba California Batching Equipment Co.——

The Court: Now, go a little slow. We have got a reporter who is trying to keep up with you.

Mr. Sellers: It is hereby stipulated by and between the parties C. S. Johnson Company and Merle W. Stromberg, dba California Batching Equipment Co., to the above-entitled action, through their respective attorneys, that the ozalid prints provided by the defendant Stromberg and marked for identification as Plaintiff's Exhibits 1, 5 and 8.

(Testimony of Paul S. Wright.)

represent the cement and aggregate weigh hopper proportions of the Stanton Ready-Mix Plant in Stanton, California, and that said Exhibits [66] 1, 5, and 8, together with the weighing lever and scale means at said Stanton Ready-Mix Plant are typical of and represent the construction and arrangement of the weigh hoppers and scale combinations in all concrete batching apparatus which defendant Stromberg or those acting for him or under his direction or control has made or installed since August 25, 1948, in which the cement and aggregate are weighed on separate scales, and in which the position of the cement at the time it is weighed by its scale is between the positions of spaced masses of aggregates at the time they are weighed by their scale, it being understood that this stipulation does not apply to the C & S concrete plant at El Segundo, California.

Your Honor, I would like at this time to offer into evidence Plaintiff's Exhibits 1, 5 and 8, which were referred to in the stipulation.

The Court: They may be received in evidence.

The Clerk: Plaintiff's Exhibits 1, 5 and 8.

(The exhibits referred to were received in evidence and marked as Plaintiff's Exhibits 1, 5 and 8.)

Mr. Sellers: I would also like to read a stipulation as follows:

It is hereby stipulated by and between the parties C. S. Johnson Company and Merle W. Stromberg, dba California Batching Equipment Co., to the

(Testimony of Paul S. Wright.)

above-entitled action, through their respective counsels, that: [67]

1. The plaintif C. S. Johnson Company is a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, and has its principal place of business in Champaign, County of Champaign, and State of Illinois.

2. The plaintiff C. S. Johnson Company is the sole owner of all right, title and interest in and to the United States Letters Patent 2,138,172 in suit, and has at no time assigned any interest in that patent.

3. That plaintiff C. S. Johnson Company has placed the required statutory notice upon apparatus made by it since the issuance of said patent 2,138,172.

4. Defendant Merle W. Stromberg, dba California Batching Equipment Co., on or about February 16, 1953, received a letter from plaintiff notifying him of his alleged infringement of plaintiff's patent.

5. The defendant Merle W. Stromberg has, within the last six years immediately preceding the filing of this action, made and sold devices in the County of Los Angeles, State of California, which plaintiff alleges infringe said patent 2,138,172.

Do you want me to read the next?

Mr. Lyon: No. I would like you to read No. 8.

Mr. Sellers: No. 8. It is stipulated and agreed for the purposes of trial of this action that the

(Testimony of Paul S. Wright.)

plaintiff will rely [68] only on Claims 1 and 5 as the claim or claims infringed by the defendant.

9. It is stipulated that the count for unfair competition will not be urged at the trial.

I would now also like to read into the record, your Honor, the admissions which have been made by the defendant.

1. That the construction and arrangement of the cement and aggregate weigh hoppers shown in the ozalid prints provided by the defendant Stromberg and marked for identification as Plaintiff's Exhibits 1, 5 and 8, Exhibit 1 having been initialed by the notary Stan Brink and Exhibits 5 and 8 having been initialed by attorneys for both plaintiff and defendant, is typical of the structure or structures identified in each of the following subparagraphs, each subparagraph to be answered separately:

I should like to insert here that these admissions have been made by the defendant.

(b) The construction and arrangement of the cement and aggregate weigh hopper portions of all concrete batching apparatus which the defendant Stromberg, or those acting for him or under his direction and control, has made, sold or installed since August 25, 1948, in which the cement and aggregate are weighed on separate scales, one scale weighing cement in a cement hopper and a separate scale weighing aggregate contained in hoppers disposed on opposite sides of said hopper. [69]

(Testimony of Paul S. Wright.)

(d) The construction and arrangement of the cement and aggregate weigh hoppers installed by or for the defendant Stromberg at the Stanton Ready-Mix Plant at Stanton, California.

(e) With respect to Exhibit 5 only, the construction and arrangement identified in subparagraph (d) including the means for adding water to the cement and aggregate.

3. That the Stanton Ready-Mix Plant in Stanton, California, as built by or for the defendant Stromberg, includes one weighing mechanism for the aggregate weigh hopper and a second and separate weighing mechanism for the cement weigh hopper.

4. That the Stanton Ready-Mix Plant in Stanton, California, as installed by or for the defendant Stromberg, includes apparatus for connecting the cement weigh hopper to its associated weighing mechanism, and the aggregate weigh hopper to its associated weighing mechanism.

7. That the Stanton Ready-Mix Plant in Stanton, California, as installed by or for the defendant Stromberg, includes a cement weigh hopper so positioned relative to the aggregate weigh hopper that cement being discharged from the cement weigh hopper will fall onto aggregate being concurrently discharged from the aggregate weigh hopper.

9. That the Stanton Ready-Mix Plant in Stanton, California, as made by or for the defendant

(Testimony of Paul S. Wright.)

Stromberg, includes [70] cement and aggregate weigh hoppers having discharge portions so related that total or partial commingling of the discharging cement and aggregate occurs during concurrent discharge of said hoppers through said discharge portions.

10. That the Stanton Ready-Mix Plant in Stanton, California, as made by or for the defendant Stromberg, includes cement and aggregate weigh hoppers having discharge portions so related that cement and aggregates concurrently discharged from said discharge portions fall in a shaft-like stream.

14. That at the Stanton Ready-Mix Plant in Stanton, California, as installed by or for the defendant Stromberg, the cement and aggregate weigh hoppers, the weighing mechanisms therefor, and the apparatus for connecting the cement and aggregate weigh hoppers to their respective weighing mechanisms are so constructed and arranged that the cement weigh hopper may move independently relative to the aggregate weigh hopper.

16. That during concurrent discharge of the cement and aggregate weigh hoppers the discharging cement falls between and engages aggregate discharging from said two discharge portions of the aggregate weigh hoppers.

I would now like to offer in evidence, your Honor, Exhibit No. 8 for identification comprising the Stromberg showing of the Stanton plant.

(Testimony of Paul S. Wright.)

The Court: It may be admitted. [71]

The Clerk: That was admitted before. It was 1, 5 and 8.

Mr. Sellers: That was stipulated.

I should like to offer in evidence No. 9 comprising a drawing by Mr. Stromberg.

Mr. Lyon: May I see that, please?

Mr. Sellers: I withdraw that at this time, your Honor, because it has not been marked. I am sorry.

I offer into evidence No. 10, which is the patent in suit, your Honor, soft patent.

The Court: It may be admitted.

The Clerk: Exhibit 10.

(The document referred to was received in evidence and marked as Plaintiff's Exhibit No. 10.)

Mr. Sellers: I offer into evidence the file history of the patent in suit, which has been marked for identification as No. 11.

Mr. Lyon: No objection.

The Court: It may be admitted.

The Clerk: Exhibit 11.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 11.)

Mr. Sellers: I offer into evidence a diagrammatic showing of the Stanton plant which has been marked as Plaintiff's Exhibit No. 12 for identification.

Mr. Lyon: Just a moment, please. Your Honor, I would [72] like to object to the admission of that. There is no showing this man on the stand identified or made the drawings himself, or they were made under his direction. I don't think there is enough foundation.

The Court: Objection overruled. It may be admitted.

The Clerk: Exhibit 12.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 12.)

Mr. Sellers: I offer into evidence Exhibit No. 13 for identification, which is another showing of the Stanton plant.

Mr. Lyon: Same objection.

The Court: Same objection and same ruling.

The Clerk: Exhibit 13.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 13.)

Mr. Sellers: I offer Exhibit No. 14 for identification, which is the Stanton plant showing.

Mr. Lyon: Same objection.

The Court: Same ruling.

The Clerk: Exhibit 14.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 14.)

(Testimony of Paul S. Wright.)

Mr. Sellers: Exhibit No. 15, which is a chart showing the claim 1 applied to the patent structure.

Mr. Lyon: May I clarify this? Did this man make these? [73]

Mr. Sellers: No, this man didn't make these. There has been no testimony to that effect.

Mr. Lyon: I will make the same objection, your Honor. He is certainly in no position to vouch for the accuracy.

The Court: Same ruling. It may be admitted.

The Clerk: Exhibit 15.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 15.)

Mr. Sellers: I offer in evidence as Plaintiff's Exhibit 16 a chart showing claim 1 applied to the Stanton plant.

The Court: Same objection and same ruling.

The Clerk: Exhibit 16.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 16.)

Mr. Sellers: And as Plaintiff's Exhibit No. 17, chart showing claim 5 applied to the patent structure.

The Court: Same objection and same ruling.

The Clerk: Exhibit 17.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 17.)

(Testimony of Paul S. Wright.)

Mr. Sellers: And as Exhibit No. 18, a chart showing claim 5 applied to the Stanton structure.

The Court: Same objection and same ruling.

The Clerk: Exhibit 18. [74]

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 18.)

Mr. Sellers: Your witness, Mr. Lyon.

Mr. Lyon: Thank you.

Your Honor, before I commence my cross-examination, I have in my possession here a drawing which I received Monday, last Monday, of a plant that was built in San Francisco in 1931, which shows a hopper within a hopper suspended from separate scales. I am required by Section 282 of Title 35 to provide Mr. Sellers with 30 days notice before I can raise a defense of any prior art or prior patents or prior publication.

The 30 days expired before we found out about this. As a matter of fact, Mr. Stromberg only found about this plant the middle of last week.

I would like to have permission to put evidence in the record on this prior use. I would like to know if I am going to be permitted to do that now, in order that I may try to persuade the people from San Francisco they should come down and testify later in the week.

The Court: I think it can be admitted provisionally. I don't know whether I will allow it to stand.

Mr. Lyon: Could I suggest an alternative, your

(Testimony of Paul S. Wright.)

Honor, that after the evidence has been received here, that we may have permission to go to San Francisco and take depositions to [75] establish this fact within any time you prescribe?

The Court: Well, I don't know. We are trying this case now. This is the time.

Mr. Lyon: I realize that.

The Court: This case was supposed to have been tried last July.

Mr. Lyon: I was not in the case at the time.

The Court: You weren't in the case at that time. Of course, it wasn't tried last July because of the fault of counsel, but because of the fault of the court. I was assigned down to San Diego and I had to be in San Diego. Otherwise, this case would have been tried. So whether or not I will allow a postponement for the purpose of taking depositions, I don't know.

Suppose you mark that for identification. It can be marked for identification regardless, I think.

Mr. Lyon: Well, if I have the gentlemen come down from San Francisco, would they be permitted to testify? That is one of my problems. I would hesitate to call them down here if I didn't have some assurance of some sort.

The Court: What are your defenses in this case?

Mr. Lyon: Our defenses are lack of invention, lack of infringement, lack of invention both on prior patents and on this prior use. We have so pleaded the defenses in the answer, your [76] Honor.

(Testimony of Paul S. Wright.)

The Court: I understand lack of invention.

Mr. Lyon: And anticipation.

The Court: You didn't set out prior use, did you?

Mr. Lyon: I believe you will find the answer did, your Honor. Calvin White filed the answer in this case. Otherwise I would be more familiar with it. I believe it is set out in the answer.

The Court: I am trying to find the answer in the file. I have got it here now.

Mr. Lyon: 17(d), I think you will find it was alleged that the—it is 17(c) and (d) that the patentee did not invent the subject matter, and also it was invented by someone else in this country who has not abandoned, suppressed or concealed it.

Also in 17(b) you find an allegation that it was on sale in this country more than two years prior to the date of the application for the patent in suit.

Would you mark this as Defendant's Exhibit A for identification?

The Clerk: Defendant's Exhibit A for identification.

(The exhibit referred to was marked as Defendant's Exhibit A for identification.)

Mr. Lyon: That appears on page 4 of the answer, your Honor.

The Court: Yes; but I am trying to find whether or not [77] the defendant filed a trial memorandum.

Mr. Lyon: Yes; pretrial memorandum was filed March 7th this year, your Honor.

(Testimony of Paul S. Wright.)

The Clerk: Just the other day they filed one and Mr. Sellers has filed one.

The Court: I have got a reply to the defendant's pretrial memorandum.

Mr. Lyon: I have got it marked filed March 7th on my copy, your Honor.

The Court: March 7th?

Mr. Lyon: Yes, sir.

The Court: Have you got an extra copy?

Mr. Lyon: I would be glad to let you look at my copy.

Would you mark this for identification, please?

The Clerk: Defendant's Exhibit B for identification.

(The Exhibit referred to was marked as Defendant's Exhibit B for identification.)

The Court: In your trial memorandum, can you point out where you raise this defense?

Mr. Lyon: I did not know of it at that time.

The Court: It was filed March 7th.

Mr. Lyon: That is correct. I learned about this last Thursday or Friday, Friday afternoon. You see, your Honor, this is a very difficult field. These plants are put up for a specific construction. For example, they are building a dam [78] and they put up a batching plant. When the dam is completed, the batching plant comes down. So when you try to locate something that happened in 1934 or 1935, or something that was put up three or four years ago and the dam project was completed and the plant

(Testimony of Paul S. Wright.)

taken down, it is not very easy to locate these prior users. My client has been in this field since 1928 or so.

The Court: Suppose the plaintiff says here, "I haven't had a chance to investigate this and I haven't had a chance to prepare a defense."

Mr. Lyon: Yes.

The Court: You are raising a new issue entirely and the plaintiff has a right to prepare a defense.

Mr. Lyon: I agree with that, your Honor.

The Court: I beg your pardon?

Mr. Lyon: I agree with that. I made a motion some time ago to try and obtain adequate time. We will do that. We have no desire to postpone the trial and we very strongly want to get through with it as rapidly as we can. However, I do have a defense which I think constitutes a complete anticipation of the patent in suit, and I think it is my obligation to my client to try to do everything I can to get that evidence before the court.

Mr. Sellers: May I ask Mr. Lyon a question?

The Court: Yes. [79]

Mr. Sellers: Is this a different defense than the one you referred to at the time you made the motion?

Mr. Lyon: That is correct. This is a different plant. This one happens to be in San Francisco and not in St. Louis. The man who can prove this happens to be an able-bodied man and not 87 years old and unable to travel which was the difficulty

(Testimony of Paul S. Wright.)

we ran into in the St. Louis situation. The thing, your Honor——

The Court: Have you marked your diagram?

Mr. Lyon: Yes, sir. It is right here.

The Court: For identification?

Mr. Lyon: Yes, sir.

The Court: Let me see the diagram.

Mr. Lyon: I call your attention to this figure right here, and I call your attention to the date in the lower corner there on the drawing, December 1, 1931:

I am told by the man who owned this plant that they were suspended from separate scales. The owner and the operator of the plant are both still alive.

The Court: If I allow you to introduce evidence, you will have these parties down here?

Mr. Lyon: Your Honor, they are outside the jurisdiction of this court. All I can do is try to have them come down. If they refuse to come down here then this matter is closed. I can't subpoena them. [80]

There are indications from the owner that he will be glad to, but that was Monday, and when it comes to the problem of his appearance, it may be different.

Mr. Sellers: May I be heard on this problem, your Honor?

The Court: Yes; you can be heard.

Mr. Sellers: This case was filed in October of the year 1954. It nearly went to trial in July of

(Testimony of Paul S. Wright.)

the year 1955. As your Honor has stated, the reason it didn't go to trial is because your Honor was engaged elsewhere at that exact date. On the other hand, there was no pretrial memorandum filed immediately prior to that trial either.

The Court: In this case we have this situation, that the attorneys representing the defendant and the defendant did not see eye to eye. There was no cooperation. Mr. White, who represented the defendant, withdrew from the case because he didn't get any cooperation.

Now, I don't know what the problem was that existed between Mr. White and the defendant in this case. There might have been a personality clash. There might have been something else. I don't know what the story was.

Mr. Sellers: I don't know either.

The Court: Are we to penalize a party who comes into court because of the attorney?

Mr. Sellers: Now, just a minute.

The Court: We are not trying the attorneys, you know. [81]

Mr. Sellers: If I may say so, your Honor, I think that is turning it around quite a bit. We have here the affidavit of Mr. White, who is an officer of this court, and he says in his affidavit, which was served on this speaker in September, 1955: "On these matters I have experienced controversy, misunderstanding and disagreement with the defendant. I have found myself unable to obtain from the defendant definite authorization to do those

(Testimony of Paul S. Wright.)

things which I considered necessary for proper presentation of the defendant's case from the standpoint of the court, the defendant, and myself.

"Most recently I have been unable to learn from the defendant whether defendant would appear at the trial as set for July 25, 1955, after I had advised the defendant that his appearance, in my opinion, would be necessary."

I put it to your Honor, the mere fact that an attorney may not be too well liked by his client does not permit the client to refuse to contact the attorney to tell him whether he will be present at the trial or not.

The Court: Yes, I know; but what we are trying to do here is not to try cases upon technicalities but upon the facts and with justice.

We have a diagram here that looks very similar to the plaintiff's diagram, and if the evidence will sustain the contention of counsel that these two hoppers were on different scales, then it seems to me that we have a situation here that [82] this device that was used in 1931 certainly was used before the date of the defendant's——

Mr. Sellers: How can you say that? There has been no testimony when that was used. There is in the right-hand corner a date, but who put it there, who vouches for it, no one knows.

The Court: That's right. We want the evidence. We can't take this. We want the evidence. We want somebody down here to testify when it was built and when it was used.

(Testimony of Paul S. Wright.)

Mr. Sellers: I would respectfully point out to your Honor that the Code is quite clear that the defendant has absolutely no right under the new law to bring this in either for the purpose of anticipation——

The Court: May I ask a question? Is this a question for the discretion of the court?

Mr. Sellers: Yes, your Honor. On the very next page it says——

The Court: All right. If it is in the discretion of the court, then we don't have to argue about it. That is what I am talking about.

Mr. Sellers: It says, "In the absence of such notice, proof of the said patent matters may not be made at the trial except on such terms as the court requires."

The Court: I read that statute the other day, and I decided it was purely up to the court to decide whether or not—— [83]

Mr. Sellers: It seems to me, your Honor, we should also have this in mind. This case has been set twice. We have, in this courtroom, plaintiff's representative and attorneys from back East who have come here to try this case on the day it was set. We are considering whether or not they should be put to the additional expense of coming back at a later date after depositions have been taken and everything——

Th Court: I don't know whether I will continue the case for the purpose of taking depositions or not.

(Testimony of Paul S. Wright.)

Mr. Sellers: I would respectfully point out to your Honor that this case was filed in October, 1954. That is a year and a half ago. At the very last minute, at the date of trial, in fact, since March 7, on March 7, when he filed his brief, he didn't know about it, and now we come in here today with new evidence and we are asked to hold things up and permit a change in the rules, of course, at the court's discretion, in order that he might have a better case.

The Court: It is my experience when I practiced law, that after a case was over with, I found new evidence that would have been material if I had had it at the time of the trial.

Mr. Sellers: That's right, I suppose, your Honor, but the case must be tried at a certain time. We have people from back East and we have people from northern California. What are we going to do? [84]

The defendant has delayed his defense. Are we going to put the plaintiff to additional expense in order that he may further delay the action?

The Court: I will say this. I am not going to be a party to a delay in the action. However, I won't make a ruling upon this matter, but I will say to Mr. Lyon, if you can get the witnesses here to testify, I will probably allow them to testify.

Mr. Lyon: May I make one statement? I had not intended to do this previously. There has been some reading from an affidavit of Mr. Calvin

(Testimony of Paul S. Wright.)

White's concerning some difficulty that he has had with the defendant.

Mr. Stromberg has been under a physician's care for over two years for a heart condition, and he has had shots directly into the heart sometimes once and sometimes twice a week for his condition. His difficulty in a large part with Mr. White was based on the fact that he was not capable of being in his office a lot of times when Mr. White wanted him.

The Court: I am not passing on that.

Mr. Lyon: I am not bringing this up as an excuse or anything else.

The Court: Well, I am not passing on that, but if you can get the witnesses down here, I will allow them to testify subject to a motion to strike.

You can proceed with the cross-examination. [85]

Mr. Lyon: Thank you, sir.

May I offer in evidence at this time Defendant's Exhibit B, which is a copy of the patents which have been cited in the answer? I call your attention to the fact that——

The Court: Just a minute. Don't go too fast here. It may be admitted in evidence.

The Clerk: Exhibit B in evidence.

(The exhibit referred to was received in evidence and marked as Defendant's Exhibit B.)

Mr. Lyon: I call your Honor's attention to the fact that there are some pencil markings on these patents, some scratches here and there, and I ask that they be disregarded. Those are made by myself and others who looked at these.

(Testimony of Paul S. Wright.)

Mr. Sellers: They are poorly placed, I assume.

Mr. Lyon: Some are and some are not.

The Court: I will disregard the markings.

Cross-Examination

By Mr. Lyon:

Q. Mr. Wright, have you ever operated a cement batching plant? A. Personally?

Q. Yes. A. No, sir; I have not.

Q. Have you ever constructed or assisted in the construction [86] or in the operation—I mean in the designing of a cement batching plant?

A. No; I have not.

Q. So that your information concerning cement batching plants is solely gained through observation of someone else's performance and operations in and about such a plant?

A. Over the very long period of time, that is true.

Q. But your principal concern in your occupation is with the quality of the concrete that is produced; is that correct?

A. That's right. That is not my only concern.

Q. No. Your principal association with this business. A. That's right.

Q. In other words, you take the end product and analyze that to determine whether it has the proper consituencies; is that right, is that more or less correct?

A. Well, I am concerned with achieving that end product, yes, by control of all the factors entering into the end product.

(Testimony of Paul S. Wright.)

Q. In other words, you would set up minimum specifications, so much cement and so much aggregate?

A. That is true; and many, many more factors that enter into the control of the quality.

Q. What are those factors, sir?

A. Oh, quality of aggregates, that they are free of oil, [87] organic matter, any other subject deleterious to concrete; that they meet the various specifications for Radler test laws; that they are not excessive in opaline and other reactive materials; that the cement is of the proper chemical analysis, meets the specification requirements; that the aggregates are washed cleanly and that they are stored in separate bins; totally separate from each other; and that there is no cross-contamination between those bins, no worn-out bin walls, no holes of any kind where there could be cross-contamination; that there is no method used which would permit cross-contamination of the bins by material being deposited accidentally or purposely or anything of that sort, into the bins to cause contamination; that the set-up of the plant itself meets the requirements of the specifications for being, for the aggregate being measured by weight; that the specification requirements that the cement be measured by weight and weighed in a separate weighing hopper is followed. That the capacity of the trucks used, the mixers used, is not exceeded; and many other things of that nature.

Q. In your particular observations, it is common

(Testimony of Paul S. Wright.)

practice, I believe you testified, to weigh the aggregate in one hopper and to weigh the cement in a second hopper? A. Yes.

Q. That is standard practice both in plants of the nature of the patent in suit and the other plants; is that right? [88]

A. Yes; that is the usual specification.

Q. You stated on your direct examination you did not consider the use of a hopper alongside another hopper a satisfactory way to batch cement; is that correct?

A. I didn't say it was an unsatisfactory method of batching cement.

Q. It was not as satisfactory?

A. Not as satisfactory as the method shown in the patent in suit here.

Q. Is that because you obtain an inaccurate weight?

A. It is because—it is not that you get an inaccurate weight; but you might get an inaccurate discharge.

Q. Just answer the question, will you, Mr. Wright? I will get to that in a moment.

So that your get the same precise weight or accuracy of weighing of cement and of aggregate, irrespective of whether the hoppers are disposed one within the other; is that correct?

A. Yes; the weights themselves are accurate.

Q. Now, if you take a pair of hoppers side by side and position their discharges so that the discharge of one is concentric with the discharge of

(Testimony of Paul S. Wright.)

another, do you obtain any less satisfactory result than you do if the hoppers are disposed within each other?

A. You would have to clarify that by showing me how you [89] are going to perform a concentric discharge when they are not positioned in this manner relative to each other.

Q. May I show you Johnson Patent No. 1,687,499 and ask you if you are at all familiar with that plant?

A. I have looked at this drawing: yes.

Q. Does that plant not produce a discharge shaft of aggregate which surrounds a cement shaft and—before I ask you to answer that, I will ask you to read the third paragraph of column 1 of the patent.

A. I have read what the paragraph says there, but in other portions of this patent paper it describes a different thing.

Q. Oh, I agree with that, sir. I am merely asking you if this patent does not at that stage teach the provision of a mechanism whereby the aggregate surrounds the cement upon discharge from the hopper.

A. Written in there is such a description, but I don't believe that that actually occurs in the device.

Q. May I direct you to claim 1 of this patent? Would you read that and tell me what kind of device that describes?

The Court: What is the number of that patent?

Mr. Lyon: That is Johnson patent 1,687,499.

(Testimony of Paul S. Wright.)

That is, some years, 10 years prior to the same invention.

The Court: Has the patent expired?

Mr. Lyon: It expired in 1945, your Honor. [90]

The Court: All right. Go ahead.

The Witness: That describes, I believe, what you have in the drawing over here, that is, that you in a measure have the cement in the center, but I don't believe that you would have the continuous flow, the concentricity. You wouldn't have the concentricity in this kind of device that we have been speaking of as in the other device.

The Court: May I ask why not, sir?

The Witness: Because there would be a ribboning effect of the cement down over the aggregate.

The Court: A what?

The Witness: A ribboning of the cement down over the aggregate.

The Court: For the benefit of the reporter and the court, tell me what you mean by ribboning.

The Witness: The aggregate would slide down the sides of that hopper and as the cement slid in, the cement would be on top of the aggregate. It would slide in more or less as that picture describes. You see the coarse aggregate there and the cement coming down over the top of the aggregate, being deposited over the top of the aggregate. It is a ribboning effect. It doesn't have time in the discharge to have the intermingling of the aggregate that we have been speaking of in order to fill the voids.

(Testimony of Paul S. Wright.)

Q. (By Mr. Lyon): So, in other words, the only difference [91] you can find in the discharge between this and the discharge in the patent in suit is in the particular mechanism they used and in the particular location of the discharges; is that correct?

A. You don't have a—I don't believe that is really a hopper within a hopper.

Q. I am not asking you about it being a hopper within a hopper, sir. That is not my question. My question is that this patent, I take it, describes a discharge from a cement batching operation in which the cement is thoroughly surrounded by the aggregate material a shaft is dropping.

Now, you stated that that was somewhat different in your opinion from the type of a discharge that we got in the patent in suit and I was trying to find out what that difference was, if I have phrased your testimony correctly.

Mr. Sellers: I believe he said that was a ribbon, Mr. Lyon. I don't believe he said it was a concentric discharge.

The Witness: I didn't say it was concentric.

Mr. Lyon: Perhaps we should read into the record paragraph 3 of this column 1.

Q. Would you do that for me, please, sir?

A. Paragraph 3—how are these numbered?

Q. I will show you what I want. It is starting right there.

A. "Stated more specifically the invention aims to provide [92] a large hopper in which the aggre-

(Testimony of Paul S. Wright.)

gate for the batch is stored and a smaller cement hopper having an outlet opening within said large hopper, the opening being closed by the aggregate initially fed into the large hopper whereby the cement flowing from the cement hopper will be surrounded by a layer of the aggregate and thereby held out of contact with the inner surface of the large hopper."

Q. Now, is that the——

A. In another place it describes that the cement will be deposited on top of the aggregate, in this same paper.

Q. I am not too concerned with that right at the present time. All I would like to know is, do——

A. In other words, it can't be both. I don't see how you can have both things. In one place it says you are going to have this concentric surrounding of the cement with the aggregate, and in another place over here it says you will have the ribboning effect of the cement over the top of it.

Q. May I ask this question: Is this result which you just read any different from the nature of the result you obtained from the discharge of the batching equipment described in the patent in suit?

A. If that is true, the nature of that would be the same as the other thing accomplished; yes.

Q. So that the only difference between the equipment here described in this patent I have just shown you consists [93] of placing one hopper within the other and weighing it while inside there? The discharge is identical?

(Testimony of Paul S. Wright.)

A. I didn't say the discharge was identical, because in my opinion you don't achieve the surrounding of that cement with your aggregate.

Q. The patent says so, though?

A. The patent says so, but it doesn't mean that is necessarily true. Yes; that's right.

Q. I will show you a second patent in this book. This is the patent to Robb, 1,750,244. That patent shows, does it not, three hoppers?

A. That's right.

Q. In alignment with one another?

A. That's right.

Q. All of which are discharged separately into a gathering hopper? A. That's right.

Q. The cement being placed in the middle of the three hoppers?

A. The cement hopper is positioned between the other two hoppers; yes.

Q. Have you ever seen a plant constructed along those lines?

A. I don't recall offhand having seen a plant of that type. I probably have, but I see so many of them I have no [94] definite recollection.

Q. I am not trying to pin you down to anything specific. I am just asking the question generally.

A. That's right.

Q. When we discharge all three of these into your gathering hopper, do you obtain a mixing action or commingling action in that gathering hopper?

(Testimony of Paul S. Wright.)

A. You wouldn't have a—well, that is not what you would call a hopper within a hopper which would give you the same action.

Q. I know that.

A. No, you wouldn't get the same action in that gathering hopper that you would get in a batching hopper with the cement weighing hopper located in the center of the aggregate batch hopper. It is a different thing altogether.

Q. Well, may I ask wherein it differs, sir, wherein do you get a different type of action?

A. Well, here you have got the hopper within a hopper that has a discharge down close to the bottom of the aggregate hopper. Here you have nothing of that sort as far as indicated in this drawing. You have got a long free drop from the top of this thing down to the bottom of the aggregate hopper. That would come out of there, if there was a wind blowing, and you might lose part of your cement.

Q. I realize that. I am just asking you—— [95]

A. In other words, it is not the same action as this device at all, no.

Q. In other words, if you would describe the difference between this and this, you would say it was in the positioning of the discharges relative to one another? A. I would just say——

Q. In other words, it is——

A. This is a different action altogether. This is a complete intermingling here in this gathering hopper of the aggregate and sand, heterogeneous

(Testimony of Paul S. Wright.)

mixing in the gathering hopper of the aggregate and sand. This is not a heterogeneous mixing in this thing here. This thing has a definite action of the cement falling through the aggregates when there is a simultaneous release, and getting the intermingling action during the free fall to the gathering hopper down below previously described.

Q. May I ask you this question? A. Yes.

Q. If we take this cement hopper in the patent in suit and take its discharge and put it on the same level with the aggregate hopper. In other words, bring this discharge down here so it is still a hopper within a hopper, but the discharges are at the same point, do we get any different action than we get in the Robb patent? Do you still get this commingling of this intermixture if you bring it down to the same [96] level?

A. Yes, but less of it because it would have less time.

Q. It wouldn't have any time, would it?

A. Well, it would——

Q. In other words, it would be a free fall at this point and you would have no commingling?

A. You would have a commingling due to the back-up down below here, but you would not have the same commingling that you have in this device with the amount of fall it has got from the bottom of this thing to the gathering hopper.

Q. In other words, if I take the discharge of your cement hopper and put it in the same plane as the discharge of your aggregate hopper, you are

(Testimony of Paul S. Wright.)

going to get some commingling? What is going to move a particle of this laterally or a particle of this laterally during a free fall?

A. During free fall, your amount of voids naturally in the aggregate, about 40 per cent, is greatly increased, in my opinion, to where, the cement being fluffy, containing a certain amount of air, that is, fluffing up, has a tendency to immediately push out and fill out the voids in the coarse aggregate at the sides, whatever the distance of fall. It would have that tendency. You would have less of it if you would reduce the elevation of the cement outlet in relation to the gathering hopper. Then you would have it a couple of feet high, 18 inches or two feet high. [97]

Q. In other words, you attach no importance whatsoever to the fact that this inside hopper discharge is above the discharge of the outside hopper?

A. Will you state that question again?

Q. In other words, it is unimportant whether or not the discharge of the cement hopper is above the discharge of the aggregate hopper?

A. I think it is very important.

Q. You think it is important?

A. That the center be above the hopper.

The Court: May I suggest to both counsel and the witness that they do not run over each other? It is very difficult to take two conversations at the same time.

Mr. Lyon: I am very sorry, your Honor.

(Testimony of Paul S. Wright.)

Q. Now, taking my first situation again, where the discharge of the inner hopper, the cement hopper, is at the same level or in the same plane as the discharge of the aggregate hopper, do you obtain any different commingling action than you would, for example, in Mr. Robb's patent, where there are three hoppers side by side?

A. I doubt whether you would have the efficiency of the—that they would have if the bottom of the cement hopper were positioned a little higher. I don't believe they would have the time to become as completely intermingled as in this device.

Q. Yes, sir, but is there any difference in the situation [98] I have described to you from what you obtain here?

A. Yes. This thing is a gathering hopper and that is a complete mingling of the aggregate and cement in this collecting hopper here. You don't get the concentric drop of that material into the mixer at all.

As a matter of fact, in this particular device, I would say you would probably get a ribboning effect here, partial ribboning effect of the cement over the top of the aggregate due to it having to have some sort of way to get off into the mixer as shown in the drawing.

Q. You previously on your direct examination stated that you considered a hopper within a hopper as an ideal construction. Now I would like to find out what you meant by that comment. When

(Testimony of Paal S. Wright.)

you say a hopper within a hopper, what do you mean?

A. I mean the cement hopper positioned substantially in the center of the aggregate hopper, each hopper free to move upward and downward, totally independent of each other, and the cement discharge gate located above, in a direct line above the discharge of the aggregate hopper.

Q. So that if the gate of your cement hopper is not above the gate of your aggregate hopper, then you don't consider that the ideal type of thing you are talking about?

A. Not ideal at all, no.

Q. In other words, it depends upon the arrangement of [99] those discharges, doesn't it, whether it is going to be an efficiently operating plant?

A. Yes, I would say that would be an ideal situation, to have a plant that would discharge in that manner.

Q. In other words, if I were to try to define that structure by means of a hopper within a hopper, if I don't mention where the discharges are, where they are headed or what their relationships to each other are, I haven't defined the situation that you had in mind when you said it was the ideal type of batching equipment?

A. I didn't understand the question.

Mr. Lyon: Would you read that back please?

(Question read.)

The Witness: No, you haven't, not unless——

(Testimony of Paul S. Wright.)

Q. (By Mr. Lyon): Not unless I define what those discharges are? A. No.

Q. In your experience, Mr. Wright, have you any acquaintance with the so-called large type of Johnson batching equipment, the type with a whole group of individual bins around a circle that feed into a large gathering hopper?

A. I have never encountered that type? no.

Q. You have never encountered that?

A. No.

Q. What types of batching equipment are you acquainted [100] with other than this Johnson type? What is their construction?

A. I have encountered, I suppose, almost every type of batching equipment that has ever been evolved since they first brought these things out. There was the volumetric proportioning type back in the late twenties and early thirties, the types where the cement hopper is off to the side of the aggregate hopper, where you would have a long conduit going around two or three angles in order to try to get the cement into the batch.

I have encountered a considerable number of plants where the aggregates are proportioned in one part of the yard and the cement is put in a remote part of the yard in a totally different cement weighing device altogether.

I think almost every type of device I have seen most of them——

(Testimony of Paul S. Wright.)

The Court: Before we get into a description of the types, I think it is time to take our afternoon recess.

We will now recess until 10 minutes after 3:00.

(Recess.)

The Court: You may proceed.

Q. (By Mr. Lyon): Mr. Wright, I show you now Plaintiff's Exhibit 12 and ask you whether or not you prepared that drawing.

A. No, I did not prepare these drawings. [101]

Q. Do you know who did?

A. I cannot answer that question. No, I don't know for sure who made the drawings.

Q. Did you have any hand whatsoever in their preparation? A. No, sir.

Q. In other words, have you seen them before today?

A. I have seen these drawings before, yes, but I didn't have anything to do with the preparation of them.

Q. For how long a period of time did you have those in your possession before today?

A. I have never had them in my possession.

Q. You have seen them just a matter of moments? A. A matter of moments, yes.

Q. How long ago was it that you saw the Stanton Ready-Mix Plant? A. June 24, 1955.

Q. So that when you say these are pictures of that, you are relying on your recollection of last June of having seen that plant? A. Yes.

(Testimony of Paul S. Wright.)

Q. How long were you in that plant?

A. An hour and a half, perhaps, more or less.

Q. Is that same testimony applicable to the others of these drawings which you have identified previously? [102]

A. Yes. I have only had a brief look at those drawings, matter of minutes.

Q. Now, in the operation of a plant such as illustrated in the Johnson patent in suit, it is possible to open the aggregate gate, the gate to the aggregate hopper, without opening the gate to the cement hopper, isn't that true? A. Yes.

Q. So that you can open the aggregate hopper and pour all the aggregate out and then later open the cement hopper and pour all that out?

A. Yes, that's right.

Q. Now, in the event that you performed the operation on the plant in that fashion, what kind of a mix would you get in your mixing truck, or your mixer which this is discharged in? If you pour all of your aggregate in first and then open your cement and pour all of your cement in there, do you get a satisfactory mixing?

A. No. I would say you would have a balling action if you made totally independent pullings of your aggregate gate and cement, yes.

Q. So when you were talking about——

A. A gumming inside of the drum.

Q. A gumming inside of the drum?

A. Yes.

Q. And also you would get some hanging up in

(Testimony of Paul S. Wright.)

the [103] gathering hopper and in the shroud, or whatever it is, that guides the cement to that?

A. Yes.

The Court: May I ask a question? This is not the only mixing that you do with the materials, is it? That is, in the fall, you have a mixing hopper or mixing bin in which you mix the materials, don't you, after the water has been applied?

The Witness: This represents a partial—may I answer that?

Mr. Lyon: Certainly, please.

The Court: Yes.

The Witness: This represents a partial view of a ready-mix truck. It has a volume about 40 per cent greater than the concrete you are going to mix in it. It is a revolving drum. This particular type is a center charging type. Other types now charge from the rear. They have an opening in the rear with a charging chute that throws the material around in it.

Inside of these are mixing fins, blades welded to the inside of the drum but at right angles to the drum.

The Court: Is the mixing of the concrete, that is, the mixing of the cement and the sand and gravel, is that done in the revolving drums of the transportation trucks?

The Witness: That is where the final mixing is done. If you can do anything, though, to get a pre-shrinking of the voids here, why, you can do it much more rapidly. [104]

(Testimony of Paul S. Wright.)

The Court: Then the only mixing done at the plant is the mixing that takes place in this fall, is that correct?

The Witness: No—oh, at the plant, yes, that's all that takes place at the plant, and the balance of the mixing takes place en route to the project.

The Court: And you expect in this fall that the cement, the sand and gravel will be so mixed together that when it gets into this revolving drum and goes out to the job in the revolving drum, it will complete the mixing, is that right?

The Witness: Complete it with a great deal more facility and quicker, more rapidly, and prevent the cement from adhering to the moist inside of that drum, like it has a tendency to do. As cement can get to that drum, it will stick.

The Court: I assume, also, from what you have said, that you only get the mix, that is, of the sand and gravel and the cement, just before it gets into the revolving drum of the truck.

The Witness: That's right. You get the preblending or pre-shrinking action there, the cement going into the voids.

The Court: How long is the shaft? How far is the drop?

The Witness: It would vary depending on the—in each plant it is a little bit different, I would say. I don't know the answer to that. I think it varies in each case, your Honor. [105]

The Court: How much time does it take for these materials to drop from the place where they

(Testimony of Paul S. Wright.)

are mixed together until they get into the revolving drum?

The Witness: That is a matter of—it doesn't take long.

The Court: A second or two?

The Witness: No. I would say a matter of 10 or 15 seconds, 20 seconds, something of that nature.

The Court: And in that 10 or 15 seconds you expect the cement to go evenly through this entire mix?

The Witness: That's right. It is going through there pretty fast.

The Court: How wide is this shaft? How wide is it?

The Witness: The shaft——

The Court: I mean your drum, your shaft.

The Witness: I would say that is a convenient width, 8, 10, 12 inches, depending on the volume of the plant. If it is a four-yard hopper or a six-yard hopper, that would vary, the apertures inside.

The Court: Is the opening from the cement hopper as large around in circumference as the shaft?

The Witness: No, it is a smaller opening. Both would have to be caculated for what you are trying to accomplish with your particular set-up, but it is a smaller opening than the aggregate hopper. [106]

The Court: You have got a shaft that is considerably larger than your cement opening, and in the drop of this cement with the sand and the gravel, then, you expect the cement to go to the right and to the left?

(Testimony of Paul S. Wright.)

The Witness: That's right, yes.

The Court: All ways?

The Witness: In that free drop.

The Court: Go out all ways in order to get between the sand and the gravel, is that right?

The Witness: Yes. There is that intermingling action, but at the same time you have another thing, and that is the concentricity of the aggregate around the sand to prevent cement blowing off into the air, too. There are two actions.

The Court: I know, but in order to get a good concrete mix, you have got to have a uniformity of the sand, rock and gravel, don't you?

The Witness: Yes.

The Court: If you had an apparatus in which in the center there was more cement than there was along the sides, then you wouldn't have a good batch, would you?

The Witness: Are you speaking now of the mixed concrete?

The Court: Yes. You have got three materials going down the shaft.

The Witness: Yes.

The Court: It falls only for a few seconds. [107]

The Witness: Yes.

The Court: And in that few seconds, you expect this cement——

The Witness: That is a closed shaft now.

The Court: Yes, that is a closed shaft. You expect this cement to be uniformly distributed between the sand and the gravel.

(Testimony of Paul S. Wright.)

The Witness: I wouldn't say uniformly, but homogeneously distributed to fill the voids in the aggregate.

The Court: Yes.

The Witness: In a closed shaft like that, there would be a greater turbulence, and possibly a more complete intermingling. I am not sure.

The Court: Supposing we assume this, just for the purpose of argument, now, that in this shaft there is an outside cone, or rock and gravel, and in the inside there is this cement that didn't expand at all. It is put into a truck, into one of these revolving drums, and in these revolving drums, would that be a satisfactory mix of the cement, the sand and the gravel?

The Witness: Yes. You see, this thing you are speaking of, the cement shaft would have an opening and a valve at the bottom. Now, you have the aggregate coming down the two sides of that. Then you would have at the opening a free fall of these materials concentrically around this shaft-like arrangement [108] here, and that is where the intermingling would take place between the bottom, between this valve and the collector hopper, the small hopper down at the bottom there. From that point to the collector hopper ring.

The Court: This intermingling in the free fall occurs in just a few seconds?

The Witness: A few seconds, yes.

The Court: All right.

The Witness: That is, that free fall is a matter

(Testimony of Paul S. Wright.)

of a split second, I think. The law of gravity would control that.

Q. (By Mr. Lyon): I show you now a catalog and ask if you have ever seen a truck mixer of that type?

Mr. Sellers: May I object, your Honor, to this evidence, which I believe is not relevant in point of time or in point of subject-matter.

The Court: I don't know whether it is or not.

Mr. Sellers: I put in that objection now.

The Court: Overruled.

Mr. Sellers: It has not been identified.

The Court: Overruled. The only question is, has he seen it.

The Witness: No, I have never seen this.

Q. (By Mr. Lyon): Never seen a truck mixer of that type?

A. Well, you are speaking—— [109]

Q. Open the thing, sir, and take a look at it. That will help you a little.

The Court: May I inquire what the truck mixer has to do with this case? We have no question of a truck or truck mixer.

Mr. Lyon: The point is, your Honor, that after the cement has left this apparatus, I believe Mr. Wright will testify it is in no condition for use. It is then poured into a mixer, and this is a typical type of mixer used in the field.

The Witness: Yes, I would say that is a typical rear charging ready-mix concrete truck, yes. I don't recall of ever seeing this. I have seen the Chal-

(Testimony of Paul S. Wright.)

lengers and the Rex and other types, but I pay scant attention to what make they are. I don't control the transportation of this stuff on the street.

The Court: You are willing to admit, are you not, when the mix goes into the revolving drum on the truck, it is not then fit for use?

The Witness: No, it is not ready yet for use as concrete.

The Court: It has to be revolved in the truck going to the job?

The Witness: That is true.

Q. (By Mr. Lyon): And this is a typical representative type of truck in which that performance takes place?

A. That is a typical type of truck, yes.

Mr. Lyon: That is the only purpose I offer it for, so [110] that the court can have some idea of what happens.

The Witness: It is a typical rear charging truck.

Q. (By Mr. Lyon): It goes into some kind of truck of that type after it leaves this batching apparatus, is that right? A. Yes.

Q. Of the mixer? A. Yes.

Mr. Lyon: For that purpose alone, I will offer it as defendant's exhibit next in order.

Mr. Seller: I object to it as being irrelevant.

The Court: Sustained.

Mr. Lyon: I will withdraw it. It was merely for illustrative purposes.

Q. Now, getting back to the subject we were talking about, Mr. Wright, it is possible through this

(Testimony of Paul S. Wright.)

Johnson apparatus to discharge all of the aggregate first into your mixing truck or mixer?

A. Yes.

Q. It is then possible to discharge all of the cement on top of it? A. Yes.

Q. Under those circumstances, I believe you testified you obtain a balling up of the cement, or would possibly obtain a balling up of the cement in the mixer? [111]

A. You must tell me what type of mixer. It makes a lot of difference whether it is a mixer that is charged through the top or one of these rear charging mixers.

The Court: Let me ask you a question. Let's take one of these revolving trucks. You don't have any apparatus like this at all. You just decide you put so many shovels of cement, so many shovels of sand, and so many shovels of rock into the mixer and mix it. It mixes all right, doesn't it?

The Witness: I wouldn't say so. If you had your cement in there as a separate ingredient, you would find when it left the plant probably the cement would be stuck to the inside of that drum, and you would have to add more water to knock it loose and upset your water-cement ratio and destroy the strength of your concrete.

The Court: Well, when I see them mixing cement on the sidewalk or on the street by hand, they put in a little sand, a little rock, and then they put the cement on top of it and take a hoe and mix it. Isn't that all right.

(Testimony of Paul S. Wright.)

The Witness: There isn't much quality to that, your Honor. It is generally a pretty poor operation.

The Court: You say in order to get a good quality, you have to have it pre-mixed at the plant?

The Witness: No, I didn't say that. At least, let me say this. If it is a type mixer that has an open hatch on top that charges the material, as in this drawing, and you put the [112] aggregates in that mixer and put the cement in on top of that, you would have considerable of that gummy action on the inside of that truck. It might take, on a four or four and a half or five yard load of concrete, an extra 40 gallons to knock it loose.

I not only think so, but I know so, because I fight it during the summer months in the San Fernando Valley.

Now, when you have to put in 40 or 45 gallons in there, you upset your strength. The strength doesn't come up to your normal expectation for that design of concrete that you find in the street. When they put the 40 gallons in there, they destroy the integrity of what the engineer at the plant designed.

Now in this rear charging type of thing—I hope I am not upsetting something you had in mind for questioning—in the rear type of charging, the drum would be turning while the mixer is being charged. That might be a different thing altogether, but it helps then if you have got a homogeneous blend of these things as they come down. No matter which way you charge it, if you have a homogeneous blending of the aggregates and sand and cement, you will

estimony of Paul S. Wright.)

a better job and a quicker job and a more effi-
nt homogeneous segregation-free concrete will re-
lt.

The Court: In your plans and specifications do
u demand a pre-mix at the plant? [113]

The Witness: No, sir. We have to write specifi-
tions very broadly to accommodate numerous
pes of devices. Some types are substandard and I
l them they can't use that device definitely.
Yesterday I rejected a device in the south end of
wn. A ready-mix plant owner called me and de-
ribed the device to me over the telephone, and
at's all I needed to know, because I knew it didn't
it our specifications, and he has offered to come
and pop me in the nose at the City Hall about it,
t that is something else again. That is substand-
d.

The Court: Well, the question is——

The Witness: Some things meet minimum stand-
ds, your Honor, and we have to accept that, be-
use we can't confine our operations to everything
ing perfect. We would like to be idealistic. We
uld like to have everything as fine as possible. In
y own personal opinion, I would like to have all
e devices to operate in this manner, but we can't
ve that. We have to accept other things as meet-
g our bare minimum in order to get the work done
this part of the country that has to be done, but
e are not too happy about it.
The things that barely meet our minimum have to
ve closer inspection, closer watching, to see that

(Testimony of Paul S. Wright.)

the integrity of the mixture is preserved as designed by the engineer who designed it. [114]

The Court: Again, you don't require these materials to be mixed at the plant?

The Witness: That is not a specification. In other words, we don't specify that all batching plants shall be the Johnson batching plants, no, sir.

Q. (By Mr. Lyon): Going back to what we were talking about, if you discharge all of your aggregates first and then dump the cement on top of that, you get this balling up and gumming action in the receiver and an unsatisfactory product?

A. You would in an open hatch mixer.

Q. In this specific type, I am talking about.

A. In this type truck here.

Q. Yes, any type of truck. I don't care. We are not too interested in the type of truck, because, as I understand the average operation, sometimes you use one type and sometimes another type, depending on the kind that is available.

A. That's right, all sorts of trucks.

Q. Now, in order to obtain the proper mix in one of these trucks, truck mixers, or what have you, it then becomes a necessity of putting these elements, the aggregate and your sand and your water and cement, in the truck or mixer itself in the proper order, is that correct?

A. In the proper order? I don't quite understand that phraseology.

Q. In the proper mix or order, in other words, the standard—— [115]

A. The various ingredients in the proper amount

estimony of Paul S. Wright.)

l proper quantities.

Q. Yes, but you also have to put them in in the per order, don't you, to avoid this balling up or mming?

The Court: What do you mean by "proper er"?

Mr. Lyon: I will get to that, your Honor. The y one of these plants is operated is that you first some aggregate in there. When you have got r aggregate about a quarter of the way through partially through, then the operator twists the ndle and turns on the cement, and he adjusts se two at the proper rate until he gets that out. w, he tries to get all of his cement out before has got all of his aggregate, so that he can turn t off and let the rest of the aggregate flush this tem out.

The Court: Are you testifying?

Mr. Lyon: No, your Honor. You asked me ut it.

Mr. Sellers: I suggest Mr. Lyon be sworn, your nor. He is a good witness.

Mr. Lyon: I will produce testimony of this. at is what I am trying to get from this witness.

The Witness: I think you gave a good descrip- n of the way the thing works.

Q. (By Mr. Lyon): That is an appropriate way using the equipment? [116] A. Yes.

Q. If it isn't batched that way, you usually don't a very good mix, do you, in your truck?

A. I would say if you batch the materials into

(Testimony of Paul S. Wright.)

the mixing truck in any manner in which they might become stratified or segregated, you don't achieve the same results that you would where you have this pre-blending, pre-shrinking, homogeneity, that results from this method of batching.

Q. In other words, sir, when you testified earlier that this batching equipment of Mr. Johnson's was an ideal type of equipment in your estimation, you now have two qualifications to that statement. First, that the discharges must be appropriately placed with respect to one another and, secondly, that the plant has to be operated correctly so that, in other words, you can't dump all the aggregate first and then dump all the cement second and get what you were talking about when you said that was an ideal plant?

A. In the way you spoke there, no, that wouldn't be the method and manner in which that plant is supposed to operate.

Q. So in order to get the type of pre-shrinkage, or whatever it was you were referring to, we have got to have these discharges located appropriately and we have got to have this plant operated correctly? A. That's right. [117]

Q. In other words, it is the method of operation of this plant that produces the result that you are talking about and not the structure of the plant itself?

A. I would say both. In other words, it would be operating a piece of equipment in the way it is intended.

estimony of Paul S. Wright.)

The Court: Let me ask this witness a question. om what you said a little while ago, you use all ds of revolving drums and trucking equipment?

The Witness: Yes, sir.

The Court: And I suppose some are larger than ers?

The Witness: Yes, sir.

The Court: They have a greater volume. Now, en these trucks come up to the plant for a load, you only mix the amount to go into that one ck?

The Witness: Yes, sir.

The Court: You don't mix enough to go into two three trucks at a time?

The Witness: No, sir. The plant operators know types of trucks working for that company and recognize from the truck number or other characteristics that this is a four-yard truck, that the er one is a five-yard truck, and the next one is ix-yard truck. They make up batches for those ividual sizes. My inspector has all of the design de up for each of those different size batches. l they will mix four yards for the four-yard cks, in [118] accordance to the weights he has en them, and they will follow maybe with a -yard batch into a five-yard truck, and a six- d design will go into the six-yard truck. They individually proportioned to suit the sizes of mixers.

The Court: Then regardless of where the cement s, whether it is diffused among all the sand and

(Testimony of Paul S. Wright.)

gravel, all of the cement goes into the revolving drum?

The Witness: Yes, sir. You hope it does. In certain types of devices it doesn't all go in there, but you hope it will.

The Court: Then it is mixed on the way to the job by this revolving drum?

The Witness: Yes, that is the modus operandi of the thing.

Q. (By Mr. Lyon): How far is your usual job from where your batching plant is?

A. They vary from five minutes to 90 minutes.

Q. From five minutes to 90 minutes?

A. Yes, sir.

Q. In other words, you have got this truck driving along the highway for half an hour mixing the cement?

A. Yes, some jobs, and some jobs are only five minutes away. Some are within a block.

Q. From your experience, say, if you had a three-cubic-yard batch load, how long does it take to mix that in the [119] mixing truck?

A. It all depends on the method in which it was put in the truck and whether you have got any gumming action there. When it gets out to the job, if the inspector checking the discharge of the truck notices that it is segregated, a segregated kind of mix, if the cement was stratified and got gummed to the inside of the truck, the inspector

(Testimony of Paul S. Wright.)

would decide to hold up the discharge and put in more water.

On the other hand, it might be something that would mix completely and nicely and satisfactorily within the length of haul that you had. There are all sorts of circumstances, obviously.

Q. But it can mix in that truck within a minute or two if it is properly put in there?

A. Oh, no.

Q. Could it do it in five minutes? You can assume any hypothetical situation you want. Three cubic yards or five cubic yards, whichever is easier. I don't know.

A. Well, if you say that we specify seven minutes for sidewalks, curbs, gutters, concrete of that type. We specify a minimum of 10 minutes for structural concrete.

Q. That is in the mixing truck?

A. In the mixing truck, yes.

Q. Irrespective of what kind of batching apparatus it came out of? [120]

A. That's right, but we don't always get the concrete mixed in that time.

The Court: May I ask a question?

Mr. Lyon: Yes, please.

The Court: I assume you can mix it too little?

The Witness: You can.

The Court: Can you overmix?

The Witness: Yes, sir, you can do that, too.

The Court: You can overmix?

The Witness: Yes.

(Testimony of Paul S. Wright.)

Q. (By Mr. Lyon): What happens if you overmix it?

A. Well, you have a gradual reduction in slump. We are going to have to define a lot of terms if we go into these things. The slump is related to the amount of mixing water for the particular design of concrete you have. It has a great bearing on the placeability of that concrete.

For instance, in pavement concrete, you would want a concrete on the harsh side, perhaps, not more than an inch and a half slump. The test is run in a slump cone. That is cone-shaped and cut off at the top, a frustrum cone inverted, and the concrete is deposited in there in three layers. It is rodded 25 times to each layer with a bullet-nosed rod and struck off at the top, and the cone is then slowly lifted and placed next to the concrete and the distance that the concrete slumped down below the top of the cone is measured from a [121] straight edge from the top of the cone down to the concrete elevation, and that is called the slump. That is a slump test.

On pavement you would want not more than one and a half inch slump. On the curbs, gutters and sidewalks, a two and a half or three inch maximum. On the structural work or mass concrete for a footing, an abutment, something of that sort, two and a half or three inch slump would be the right placeability for it. If it is a thin wall, it might require a five and a half or six inch slump to place the concrete in a thin wall.

(Testimony of Paul S. Wright.)

There are thousands of problems involved here that might lead us far afield.

Q. I appreciate that, Mr. Wright. We just don't know as much about this as you do.

I gather from the specifications that you write in the city here, that you specify the amount of time that the batch is to be in the mixing truck or in the mixer itself?

A. We specify both minimum and maximum.

Q. Minimum and maximum, and that is irrespective of what type of batching apparatus put it in the truck. It has got to be within your specification, it has got to be in there that length of time?

A. The minimum or not over the maximum.

Q. I show you another catalog, sir. This is of the [122] Noble Manufacturing Company. I ask you if you have ever seen a plant such as this one in your experience.

A. Yes. I am fairly familiar with the Noble batching plant.

Mr. Lyon: For the record, that is the hopper shown on page 14 of this catalog, which I will ask to have identified as Defendant's Exhibit next in order.

The Court: It may be marked for identification only.

The Clerk: D for identification.

(The exhibit referred to was marked as Defendant's Exhibit D for identification.)

Q. (By Mr. Lyon): Now, in this Noble apparatus before you, what is the distinction between

(Testimony of Paul S. Wright.)

this and the patent in suit? You have observed both of those.

A. The most distinctive feature is that this plant only has one scale. The inside hopper, the cement hopper is bracketed to the aggregate hopper. In other words, it is all made to register on one scale mechanism. I would say that is the distinguishing feature.

Q. The discharge is identical to that which you would receive here in the Johnson patent, the intermixing and commingling that you have referred to previously?

A. That is substantially the same type of action.

Q. The only difference, then, between this and this would be the fact that this cement hopper is not on a separate [123] scale?

A. Not free to move independently and give you the accuracy, and dependability, that is, of getting your full weight of cement, that the other apparatus over here is.

Q. So that actually when we talk about commingling or this intermixing or preshrinkage, or whatever you desire to call it, it has nothing to do with the fact that you separately weigh the cement and the aggregate, is that correct?

A. Will you state the question again?

Mr. Lyon: Will you read the question?

(Question read.)

The Witness: I think it would make a lot of difference in whether or not this went into the same

(Testimony of Paul S. Wright.)

type of collector mechanism that this other one went into. Otherwise, you might get stratification. Substantially, you have something here, though, that indicates the cement hopper in the middle of the batch hopper, but bracketed to it, all in one device that operates like the Johnson machine does.

Q. (By Mr. Lyon): Let me ask my question again. Perhaps you have answered it and perhaps you haven't. I didn't understand it.

Does the fact that they do not have separate scales for the aggregate and for the cement hopper in this device in any way affect the intermixing or intermingling that you obtain through the discharge? [124]

A. The fact that they don't have separate scales—I tell you, we approve the use of this device but we don't particularly like it because of the hang-up of aggregates in these corners. Your question there—in other words, the hang-up of aggregates in the corners might affect the weight of the cement in that hopper, but then you are asking me if this affects the way this operates down in the bottom.

Q. That is correct. Does it affect the discharge at all, the fact that it is not on separate scales?

A. I believe you would still have the intermingling action of the cement and aggregates.

Q. You would have the same one that you have in the Johnson?

A. If they went into a collector cone of the same type and received the same treatment, and so forth, the intermingling and the voids.

(Testimony of Paul S. Wright.)

Q. That brings up an interesting question now. When you are talking about intermixing and intermingling and this preshrinkage and everything else, where does that take place in this patented device?

A. It takes place, I would say, beginning at the time when the cement and aggregates first contact with each other and continues until the water from the water chamber hits the aggregates and the material reposes in the drum of the truck. That is where the shrinkage takes place. In other words, in [125] that drop, in that filling of the cement in the voids, in the lubrication of the mass by the water, each of those things happening tends to reduce the number of cubic feet loose weight that you have in these bins, decrease that volume into something considerably less when it reposes in that mixing device.

Q. Now, if you take this water jacket off here and if you take this gathering hopper out of here, and you try to dump this material straight from this hopper into the truck, do you get that preshrinkage?

A. That is with no water——.

Q. Nothing there, no shroud, nothing.

A. And no cement, did you say?

Q. I didn't say no cement. I said no water and no gathering hopper. Just cut this Johnson device off at the discharge from the aggregate hopper and drop that straight into a truck. Do you get the premixing or preshrinkage you were talking about?

A. In a certain measure, but it would have other objectionable features I would like.

(Testimony of Paul S. Wright.)

The Court: I know but the preshrinkage, that is the only question you were asked.

The Witness: Yes. You would have the intermingling, if it could be done, if you could hit the hole, you would have an intermingling of the rock and sand and cement. [126]

Q. (By Mr. Lyon): I am still somewhat puzzled.

A. But you wouldn't have the reduction you would have if you put the water through there.

Q. Would it be of any appreciable value at that point without having the gathering hopper first, the preshrinkage that you think you might get?

A. The preshrinkage is always of value.

Q. Would it be an appreciable amount of preshrinkage without a gathering hopper?

A. Yes, it would be appreciable. In both cases, it is very appreciable.

Q. How can that be ascertained, that you would have a preshrinkage from cement dropping from this opening here in the aggregate hopper? Is there any kind of a test that you could run to establish that?

A. It would take some time. You could first determine the—I am not a chemist. Our Bureau of Standards does all this sort of thing. You would have to determine the amount of voids in the coarse aggregate and——

Q. Let me shorten this.

(Testimony of Paul S. Wright.)

A. Let's say that the answer is so involved there, the reduction of voids and things, that I am just going to say I can't describe that to you.

Q. Let me shorten this somewhat by asking you if you have ever run such a test to determine whether or not the preshrinkage [127] at this point is appreciable at all.

A. No. It is visual. It is visually true after the material comes you notice, but I have never run such a test myself.

Q. You have never run such a test?

A. No. I am not a chemist.

Q. What was your formal education, sir?

A. Two years at Alban University in Alabama, and in World War I.

Q. Did you ever graduate from college?

A. No, sir. I am not an engineer.

Q. You are not an engineer?

A. I am only an engineer by experience. I don't have a degree in engineering.

Q. That's all I asked you.

A. That's all.

Q. I believe you testified that you have seen plants of that Noble type in operation?

A. Yes.

Mr. Lyon: I should like to have this Noble catalog marked as defendant's exhibit next in order.

The Clerk: I have marked it once.

Mr. Lyon: I am sorry. At this time, your Honor, I would like to point out that there is action involved in Chicago, which is a matter of public rec-

(Testimony of Paul S. Wright.)

ord, in which the patent in [128] suit was charged —no, it was not charged to be infringed, but a declaratory judgment action was filed under four Johnson patents in Chicago, and the defendant, who is plaintiff in this action, does not assert in that action that the present Noble plant is infringed by the Johnson patent.

Mr. Sellers: I move to strike that as being testimony by the attorney. It is not a matter of record in this case. It is not relevant to this case. It is not material. I request that that be stricken from the record as entirely irrelevant.

The Court: I don't think that is the proper way to prove it, by a statement of counsel. It may be perfectly true. I think your remarks may go out. I don't know whether I can take official knowledge of a suit pending in Chicago. I might take official knowledge of a suit pending in Los Angeles, but when I go outside of Los Angeles, I don't know what I can do.

Mr. Lyon: I will postpone this for the present, your Honor. I have copies of the pleadings in that case, but they are not certified.

The Court: If you had desired, you could have required the plaintiffs to admit that such a suit was pending in Chicago and they would have to admit it, if it were true.

Mr. Lyon: I can put their attorney on the stand now and ask him those questions, but I don't consider it of sufficient importance unless you would like to make some statement for the record. [129]

(Testimony of Paul S. Wright.)

Mr. Denny: I will make a statement for the record about that case. I attended at the trial and there when the defendant Noble was on the stand and trying to put in their evidence on no willful infringement, the attorney for the Noble Company took this patent and said, "Mr. Noble, I show you a copy of Johnson Patent No. 2,138,172. Do you infringe that patent?"

Mr. Noble said, "No. I think it is a valid patent."

Mr. Lyon: I move to strike that as testimony of counsel.

Mr. Sellers: You asked for it.

Mr. Denny: You asked for it, and that is what happened at the trial, and I will bring in the record.

The Court: That is not the proper way to prove these facts.

Mr. Sellers: He asked for it, your Honor. We are not trying to prove it.

Mr. Lyon: I asked if there was such a case.

The Court: It may go out.

Q. (By Mr. Lyon): In the Johnson patent in suit, are the valves—or what do you call these shutters at the bottom? A. Valve or gate.

Q. Are they ever opened wide open, during the operation, sir, to your knowledge, or are they throttled down?

A. Of course, all of that is obscured from the actual [130] view of an inspector present. I don't know the answer to that question.

Q. I show you now Plaintiff's Exhibit 18 and call your attention to this small figure down in the

(Testimony of Paul S. Wright.)

corner called Section 33. What are those little things in the corner?

A. Those are fillets to prevent the hang-up of the material in the hoppers.

Q. How far do they extend down?

A. I would say only far enough to fill the corner in. That is what they are for, to fill in any corners, where three lines intersect, to keep the material from hanging up in the corner. They round off the thing with a fillet to prevent the material hanging up in the hopper.

Q. In other words, those are down in the bottom part of the hopper somewhat?

A. I would say they are in these bin corners here, sir. That is where they normally put them, in the corners. Let's see.

Q. That appears to be the line, but they don't show.

A. No. It has to do with the corners of these bins.

Q. You actually saw these fillets in there?

A. Sir?

Q. Did you actually see those fillets in there?

A. No. I didn't pay any attention to them. Some plants have them and some plants don't. [131]

Q. Well, in this same view, outside of the cement hopper there is a black line which extends on either side of that. What is that, sir?

A. That's the chamber, the enclosure or compartment, the compartment where the cement scale and hopper—I mean where the cement hopper is located, for the purpose of independently weighing

(Testimony of Paul S. Wright.)

the cement with a completely free, independent motion from the compartment walls.

Q. Did you call that a partition or——

A. A compartment wall.

Q. Is it a wall? A. Yes.

Q. Where does that wall extend in the aggregate hopper, from where to where?

A. It extends—two walls that go crosswise, and then the other two walls come down in the other view on either side.

Q. They extend between the walls of the aggregate hopper or are they cut off somewhere short of the opposite sides of the aggregate hopper, or do you remember?

A. Now, just tell me which part of that wall you have in mind.

Q. Let's take this view that is figure 2 on the right-hand side of Exhibit 18. Now, that shows two sides of the aggregate hopper. Does this compartment wall or partition extend from one side to the other, or does it terminate short [132] of there, or do you remember?

A. Actually, I couldn't describe that arrangement. My impression is that two walls go over and then there are two little partitions put in the middle to form this compartment where this cement weighing hopper is.

Q. Let me ask you this question now, sir. Is there any difference in function in this device if these partitions extend all the way across the aggregate hopper or if they terminate short of it?

(Testimony of Paul S. Wright.)

A. There is no difference. If they don't go all the way to the bottom and blank off the bottom of the thing, I would say there is no——

Q. Now, let me ask you this question. In the usual operation of a batching plant of this type, is it not the general practice to open the gate of the aggregate hopper and spill some of the aggregate in first?

A. Obviously, that would be the obvious thing.

Q. That is what the operator normally does, is that not correct?

A. In other words, mechanically, that is what would have to happen before anything else could transpire.

Q. Now, if these partitions extend all the way across the aggregate hopper, is there any difference in fall characteristics of the aggregates than if, for example, they thoroughly surrounded the cement discharge, as they do in the [133] Johnson device? In other words, you take this picture here, this Section 33. A. Yes, this is what I was speaking about.

Q. This is what you are talking about?

A. Yes.

Q. This partition wall—let me get a pencil here. Would you mark in Section 33 the walls that we are referring to, the comparment walls, designate them as small a and small b, please, sir, and then mark a lead line to them.

A. All of the partition walls. Small a and small b (complying).

(Testimony of Paul S. Wright.)

Q. Would you make a lead line go from "a" to what it designates, and the same with the small b?

A. (Complying.) Of course, you have the other walls here now. They join up to make this compartment. In other words, that is not the only two.

Q. Oh, there are other walls here between the outer edge of the hopper?

A. To form a compartment.

Q. Where are those walls shown, sir?

A. I can't describe it. I just can't recollect how this arrangement is made inside to form this compartment.

Q. You don't recall, for example, whether or not the aggregate surrounds the cement or whether it is in two separate bins, one on each side? [134]

A. Yes, at the bottom it does, yes.

Q. I am not talking about the bottom. Let's talk about the top. I am talking about this area right in here. A. Yes.

Q. The aggregate is in one bin, the cement in the second, and aggregate in a third, all in a side-by-side relationship at this point, are they not?

A. Yes. You have aggregate in these two sides.

Q. That's right, and they are isolated from the cement? A. Yes.

Q. And isolated from each other?

A. From one another. This is the weigh hopper device. I don't believe that is a compartment except that you have the two compartments on each side here for the aggregates, but I don't remember any

(Testimony of Paul S. Wright.)

further compartmentation of that as far as the aggregates are concerned.

Q. So in figure 1 of Exhibit 18 on the right-hand side, we find that we have three compartments side by side at the upper extremity above the termination of the compartment walls a and b?

A. Yes.

Q. Now, when the operator opens the gate of the aggregate hoppers and discharges the aggregate that has accumulated beneath the compartment walls, and the cement hopper is opened, what is the path of flow of the cement? [135]

A. The path of flow of the cement is more or less—is vertical within the flow of the aggregate.

Q. There are two shafts of aggregates, one on each side, and the cement is in the center?

A. No. They are concentric. There is a concentric action there of the aggregates and the cement going down through concentrically like this picture here would indicate.

Q. "This picture"; you are pointing to Section 55 of the Johnson device and not Section 33 of the Stanton Ready-Mix Plant? A. Yes.

Q. This is different than this, is it not, referring to Section 55 of the Johnson plant, that is different from Section 33 of the Stanton plant?

A. No. I think you would have the same action.

Q. I am not talking about their action, sir. I am talking about the physical alignment of the two on Exhibit 18. They are physically constructed different, are they not?

(Testimony of Paul S. Wright.)

A. I see no essential difference between the two. That aggregate is going to come down all around this area.

Q. I am not talking about that.

A. You actually have only one hopper here.

Q. That is something that the court will decide. I ask you if there is not a physical structural difference between [136] Section 33 and Section 55 in those two.

Mr. Sellers: I object, your Honor. The structure speaks for itself.

The Court: That's right. The document speaks for itself.

Mr. Lyon, I like to quit at 4:00 o'clock.

Mr. Lyon: I am sorry, sir. I didn't realize what time it was.

The Court: Unless we can finish up with the witness, we like to quit at 4:00 o'clock.

Mr. Lyon: I will have a little bit more tomorrow, sir.

The Court: After two hours of this, the reporter is glad to take a recess.

Mr. Lyon: So am I, your Honor.

Mr. Sellers: And the court.

The Court: We will now recess until 10:00 o'clock tomorrow morning.

(Whereupon, an adjournment was taken to 10:00 o'clock, a.m., Wednesday, March 14, 1956.) [137]

(Testimony of Paul S. Wright.)

Wednesday, March 14, 1956, 10:00 A.M.

The Clerk: Johnson Company vs. Merle W. Stromberg, further trial.

The Court: Are you ready?

Mr. Lyon: Yes, sir.

Mr. Sellers: Ready, your Honor.

Mr. Lyon: We were still cross-examining Mr. Wright.

The Court: You may proceed.

PAUL S. WRIGHT

the witness on the stand at the time of adjournment, having been heretofore duly sworn, was examined and testified further as follows:

Cross-Examination

(Continued)

By Mr. Lyon:

Q. Mr. Wright, I believe you testified on your direct examination that a hopper within a hopper was a characteristic of the Johnson plant. Have you ever seen any other kind of plant having a hopper within a hopper?

A. I have seen a considerable number of plants of the Johnson type. They were made with a hopper within a hopper. As to whether they were Johnson plants or not, I don't know.

Q. So when you say a hopper within a hopper is a characteristic of a Johnson plant, what do you mean by that? [140]

A. I mean a cement hopper located within the aggregate hopper and both hoppers free to move in-

(Testimony of Paul S. Wright.)

dependently from each other up and down, independently with each other, and each one attached by conventional linkages and hangers, and so forth, and it is on separate scales.

Q. When were you first aware of the existence of Johnson Patent No. 2,138,172?

A. June, 1955.

Q. Prior to that time you had never heard of a patent on this type of mechanism, had you?

A. No. I never researched that.

Q. Then why did you draw a conclusion that a batching apparatus having a hopper within a hopper was characteristic of a Johnson type? I don't understand the relationship.

A. Sir? I didn't get the question.

Q. Why do you draw the conclusion, then, that a hopper within a hopper is characteristic of a Johnson plant? A. From the patent drawings.

Q. From what you have learned since June, 1955?

A. That there was a patent on this thing, yes.

Q. Prior to that time you didn't call this type of structure a Johnson type structure, did you?

A. No. I never referred to the type at all.

Q. You had never heard of it?

A. Not of that type by name, no. [141]

Q. It was just an ordinary batching equipment having a hopper within a hopper?

A. An acceptable batching hopper, yes.

The Court: Mr. Lyon, you are insisting on overrunning the witness. Don't ask a question until the

(Testimony of Paul S. Wright.)

witness finishes. My reporter just can't get two statements at the same time.

Mr. Lyon: I appreciate that.

Q. Mr. Wright, what does concentric mean to you?

A. It means circular or one thing circular in relation to another thing that is circular, surrounding.

Q. So that in order for discharges of a pair of hoppers to be concentric, what disposition must they have relative to one another?

A. I would say the discharge gate of the one hopper must lie immediately above the discharge gate of the other hopper.

Q. And centrally located?

A. Essentially centrally located, yes.

Q. And in order to obtain this intermixing or preshrinking which you believe is obtained in that relationship, the discharge is necessary, they must be first one positioned above the other and, second, concentric with respect to one another?

A. Yes.

Q. And if you took the discharge of this cement hopper [142] in the Johnson device and moved it to the side so that it was adjacent one of the sides of the aggregate hopper, then these results you are talking about would not be obtained?

A. Not to the exact degree you would have if they were centered with each other vertically, both ways.

Q. When you look at one of these batching plants in the field, can you see what's going on dur-

(Testimony of Paul S. Wright.)

ing the operation? Can you see the shaft of material that falls from the hoppers?

A. Some you can and some you can't. There are so many different types of it.

Q. I am talking now specifically about the Johnson type.

A. I say there are so many plants. Some are made with the hopper sitting down below eye level and some are up high where your vision is obscured. So some you can see and some you can't.

Q. Look at Fig. 1, patent No. 2,138,172, please. If a device were constructed in accordance with that, would it be possible for you to see the stream of aggregate as it is discharged?

A. If you would put yourself in position to do so, yes.

Q. Have you ever put yourself in such a position?

A. Yes, I have, from a working platform looking down on some plant. [143]

Q. What angle do you see that at?

A. Between the discharge of the aggregate hopper and the collecting cone.

Q. Referring to Fig. 1 of the Johnson patent, whereabouts with respect to that apparatus would you be standing when you made this observation?

A. You would have to be off at an angle where you could see the material coming down.

Q. Pardon me. Can you describe it with reference to some specific structure? I mean, are you on

(Testimony of Paul S. Wright.)

a level with the scales or the storage bins? Are you 20 feet from them, or something like that?

A. Some position on the working platform of the plant where you can look down through the beams, and so forth, and see how it is going in the collector cone, or climb up in the place, if you aren't arrested, or anywhere you can see. I have climbed all over the plants for one reason or another.

Q. Have you climbed over them while they were running?

A. Yes. Up on top of the plants. I have been inside of classifying houses while the plant is in operation. Asphalt plants, for instance. I have been inside of classifying rooms back in the old days where the dust would be so thick you couldn't see five feet in front of you, two feet in front of you; and breathing sand and breathing smoke and gases, to see what was going on in those classifying streams. [144] The inspector, if he wants to know something, will go to any lengths to find out what he wants to know.

Q. In the operation of one of these batching plants, from what position do you observe the discharge of the aggregate from the aggregate hopper?

A. If I wanted to see that operation in most plants, I would walk down the stairway, perhaps, and look over. I would find an advantageous point. The plants are set up so differently, all of them, that there are no two plants built exactly alike in their set-up, in their framework, and so forth. I would

(Testimony of Paul S. Wright.)

find an advantageous position to see what I wanted to see, no matter where it is.

Q. Now, in the operation of one of these Johnson type plants, when you can see this stream of aggregate flowing out, is there any dust around, any cement flying around?

A. No, not at the discharge end.

Q. There is nothing there but solid rock?

A. The smog control people won't stand for that sort of thing.

Q. There is nothing there but solid rock that you can see?

A. Solid rock? You mean aggregates prepared for manufacture of concrete. Solid rock is a different thing.

Q. Pardon me. So that when you look at the shaft from this advantageous position or off to the side, you see just the [145] aggregate?

A. You would perhaps get flashes of the cement as it went by in its attenuated voyage in there. You would get an occasional view of the cement as it went by, but essentially you would see the rock. It would be coming down so rapidly that all you would see is a shaft of material going by. You have to look sharp to see what you are looking for.

Q. So actually it goes by so fast you really can't tell what that shaft is constructed of, can you?

A. Well, I don't know as you can analyze the grading of the material in a cross-section of that stream. You get a fairly comprehensive idea of about what is taking place there, yes.

(Testimony of Paul S. Wright.)

Q. How do you get this comprehensive idea? Based on what? You can't visually see it.

A. Well, if you want to know if the batch is being proportioned right, you go up on the platform and see it is being proportioned right.

If you want to make sure all of it is getting in the truck, you would go down to an advantageous position to see that it is getting to the truck.

You go to the place on the plant to see what you are looking for.

Q. Well, assuming now that we want to know what this shaft of discharge looks like at the point of discharge from [146] the aggregate gate, how can you possibly ascertain what that cross-section is? Can you do it by visual inspection?

A. No. According to the drawing here, you would know that the first material that came out of that aggregate hopper would be a small amount of rock and sand before the shaft of cement started through.

Q. So that your testimony as to the nature of the discharge is based on what is said in that patent, is that correct?

A. No. I have some knowledge of the void theories and density theories of concrete and aggregates and things of that sort. I know from 37 years of experience the nature of these materials and about what is going to take place in among these materials.

Q. Are we talking about the same thing? I am not talking about the concrete itself. I am not talking about the batching. I am talking about the na-

(Testimony of Paul S. Wright.)

ture of that shaft, the discharge at that specific point.

A. So from all of my experience, experience tells me when the material comes down the sloping sides of that bin into that discharge of the aggregate weigh hopper, and when the cement comes down through that stream of the aggregates, that those attenuated voids are going to be—in the coarse aggregates, are going to be filled to a considerable extent with sand, and then the voids in the rock and sand are going [147] to be filled to a considerable extent with the cement. In other words, pure reasoning would dictate that.

Q. Pure reasoning, but nothing based on actual observations or tests?

A. No. I don't know of anyone that has tested that, that has had a direct cross-section of that through some experiment. I don't know how you would go about getting a direct cross-section of that material.

Q. In any event, you have never taken a cross-section of that material, so you don't know other than by deductive reasoning how that occurs?

A. Based upon experience and observation of the mechanical operation of these things.

Q. Can something move sideways while it is in free fall?

A. You mean if the shaft were to move in fall?

Q. I say during free-fall. You start a rock up there and drop it to the floor. Can it move sideways during that fall?

(Testimony of Paul S. Wright.)

A. There would be no tendency for it to, that I know of; I am not that much of a physicist to be able to tell you.

Q. Do you know how fast things do fall while they are falling? Do you have any idea of the speed?

A. I have forgotten the law of gravity that deals with that. It doubles every so far. I forget the formula. [148]

Q. I believe on direct examination you defined a hopper for us, and I believe you defined it in terms of a receptacle capable of being discharged which has an outlet and means to control the outlet.

A. Yes.

Q. Is that definition one that is well known in your particular art? A. Yes.

Q. If I put a man on who is qualified to testify on cement batching plants and if I ask him what a hopper is, is that the answer I am going to get?

A. You might have to ask him a second time. I think he would come up with the answer if he had a chance to think for a moment.

Q. Why does a hopper have to have a valve or something to control its outlet in order to constitute a hopper? This is an entirely different construction of the word that I have ever heard before. I am wondering if it is a word of art in your particular profession or where you got this particular definition?

A. Well, that has been my conception of a hopper for a long time. If it didn't have the outlet and means of controlling the outlet, it wouldn't be a

(Testimony of Paul S. Wright.)

hopper. It would be a tank. You would then have a tank. You wouldn't have a hopper.

Q. I am not sure I agree with that. [149]

A. That is my conception of it.

Q. That is your conception of a hopper?

A. Yes.

Q. Has anybody ever in your experience defined that term in that way for you?

Mr. Sellers: May I inquire, your Honor, does the record show that the witness defined hopper as containing a valve? I don't recall that, your Honor.

Mr. Lyon: That is my note.

Mr. Sellers: I don't recall that, your Honor. I remember he said it had a body and it had an inlet or means to charge it and that it had a discharge outlet or means, but I don't recall personally that he said it did or didn't have a valve. I am under the impression he said it had outlet means to control the flow. I just don't remember. I raise the point. It is being presumed in cross-examination he said that and I don't remember.

The Court: When the question was put to the witness, he didn't say that wasn't his answer.

Mr. Sellers: No. No one asked him.

The Court: He says that is his definition. What is your definition?

The Witness: I believe that is the definition I gave, that it is a receptacle that has means of being charged and has an outlet and a valve to control the discharge of the [150] hopper. Now, every hopper I can think of has essentially that.

(Testimony of Paul S. Wright.)

If you are mining ore up in the mountains, you would put the ore in a hopper and you wouldn't have a free flowing thing there. You would have an opening. But you would have some sort of a gate to keep from covering up your truck or whatever you used to haul it away.

A railroad hopper car has the hopper sides that fall down, that open up to permit the discharge of the hopper cars, but then they are controllable. They don't just collapse all of a sudden and drop all of the material.

I conceive of hoppers as having some means of controlling the flow from the outlet.

Q. (By Mr. Lyon): Let's take a railroad hopper car. That is a bin like this, isn't it?

A. Yes.

Q. In which you dump everything?

A. Yes.

Q. From the top? A. Yes.

Q. Does that have any kind of an outlet?

A. It has the outlets on the bottom.

Q. Underneath the carriage of the railroad car?

A. Yes, hopper cars. There are some made that open on the side. Some of them have side openings. Some have the opening in the bottom. [151]

Q. Pardon me. Do you mean by that the sides are pivotal so that you can drop them?

A. I am not an expert on railroad cars. I know very little about the railroad business. But all hopper cars certainly have some method of bottom discharge or side discharge, and to the best of my

(Testimony of Paul S. Wright.)

recollection they have a means of controlling those gates.

Q. So that when you use the term hopper, the discharge can be in the side or in the bottom, is that correct?

A. Yes, side opening cars, side opening hoppers, bottom opening hoppers, yes, all types.

Q. So that the term hopper does not necessarily define a device which has a bottom discharge, is that correct? A. Yes, I would say that is true.

Q. So that if we try to define the invention in the Johnson patent as a hopper within a hopper, suspended from separate scales, and go no further in our definition, we have not defined the discharge relationship of the two hoppers, have we?

A. Will you state that again?

Mr. Lyon: Will you read the question, please?

(Question read.)

A. I don't think so.

Q. So that the results that you testified yesterday that were obtainable from the structure illustrated in the [152] Johnson patent are not obtainable from a device constructed in accordance with the definition that I just gave you?

A. Not obtainable with the side opening that you just spoke of, no.

Q. In other words, in order to obtain the beneficial preshrinkage or premixing that you testified you obtained with the Johnson device yesterday, it

(Testimony of Paul S. Wright.)

is necessary to include in our definition the relationship of the discharges?

A. That is an essential part of this mechanism.

Mr. Sellers: I object to that question, your Honor. Necessary for what purpose and in what connection? Does the attorney mean that in order to define this, in order to meet the limitations of the patent requirements, or does he mean in order to comply with engineering specifications?

I request he be more specific in the question so that we can know what he is talking about.

The Court: Overruled.

Mr. Lyon: Your witness, Mr. Sellers.

The Court: May I ask counsel a question?

I am looking at the patent 2,138,172. In the third paragraph you say:

"The apparatus of this invention makes provision for a batch hopper assembly * * *"

Now, is hopper described in the patent in any way?

Mr. Sellers: It is illustrated clearly, your Honor, in [153] the drawing which supplements the description.

The Court: You are depending upon the illustration?

Mr. Sellers: I don't say that. I say it is there. I would want to refer to the specification in detail to make certain it doesn't describe it, but I am willing to believe, in fact I can tell you, that the description will refer to a hopper comprising a body 8 having an inlet at the top, and in the case of the

cement hopper it has a valve means at the bottom which are described and identified by reference characters which I will point out.

Referring to Fig. 4, for example, we find a valve 22 shown in connection with the cement hopper 8. Now, each reference character finds a response in the specification, your Honor. I can find where it mentions that but we know if there is a reference character, it is described. There is a valve 22——

The Court: Then the word hopper must be defined as something that has an opening and the valve at the bottom?

Mr. Sellers: That's right, your Honor. In other words, in a patent, the specification and the disclosure is the dictionary. In this case the hopper is clearly illustrated and it is referred to in in the specification and it is defined in terms of what we have here. It has an inlet at the top and it has a body and it has a valve in the bottom and it has valve means to control. That's a hopper. Under all the accepted [154] principles of patent law, the specification in the disclosure is the man's dictionary, and when we say in the claim we have a hopper, this is what we are talking about.

The Court: All right. Proceed with your redirect.

Mr. Sellers: Thank you, your Honor.

Redirect Examination

By Mr. Sellers:

Q. Now, Mr. Wright, in the cross-examination there has been further discussion about the pre-

mixing which takes place during the fall of the cement and the aggregates from the cement and aggregate hoppers, and it has been brought out that a certain amount of mixing takes place during the free fall period. A. Yes, sir.

Q. Now, in the disclosure and in common practice in loading the premix trucks, would it not be a fact that the shaft of aggregates with the cement positioned in the center will strike or bounce against either the gathering hopper at the bottom or on the interior of the mix trucks?

A. Yes. It is denser at the discharge of the aggregate hopper, and after it passes that dense form where it is carried together, it tends to go apart, have the voids to open up, I mean.

Q. As an example of a point of impact, let us refer to [155] Fig. 1 of the Johnson patent where we see the free fall of material striking the gathering hopper which bears the reference character 30. Now, upon the shaft of material which comprises the aggregate around the center core of the cement, will you tell us what would happen upon that striking that gathering hopper? Would there be a further mixing and diffusion?

A. Yes. That gathering hopper would tend to retard the flow of that falling shaft of material as shown in the drawing. Some of that material will strike the sides of that collecting hopper and would rebound, causing a further blending of the materials at that point and back up slightly to where there would be a general mixing action.

(Testimony of Paul S. Wright.)

Q. Would you say there would be more or less a turmoil, a mixing action in that hopper?

A. Considerable turbulence at that point, at the bottom of this cone.

Q. Turbulence. Thank you. With the cement positioned in the center of the shaft, at the time that turbulence takes place, is it or is it not a fact that the cement being centrally positioned will be better able to reach more evenly all of the aggregate which is positioned around the cement than though the cement were off at one side?

A. Yes. As some of the aggregate strikes the cone in its gravitational fall, that material that rebounds will rebound [156] at an angle back toward the center of the stream in the fall of the material. The cement being a very fine material, let's say considerably colloidal in characteristic, has a tendency to float off in the air. Gravity does not affect it much.

The cement will have a tendency, as the other material comes inward from rebound to go outword and fill voids in the stream and, as I say, there will be a great deal of turbulence there to further blend the material.

Q. Would it be your opinion that with the shaft of cement positioned centrally, that the distribution throughout the body of the aggregate would be more even than were the cement, let us say, positioned off at one side?

A. Oh, yes. If the cement is positioned off to the side, you generally have the ribbon effect, and where

(Testimony of Paul S. Wright.)

the cement substantially is ribboned over the top of the aggregate flow, quite a few patents describe that sort of method of feeding cement, and you would not have the mixing action of the cement that you would have with this Johnson arrangement.

Q. Would it be fair to say that the premixing which takes place in the Johnson type construction is due to two factors, the first factor comprising the mixing which takes pl[illegible] during free fall; and at the time the mixtu[illegible]aves the hoppers, and the second part which takes place at the time the two shafts, concentric shafts, strike the gathering hopper?

A. Both of those things contribute to the turbulent action [157] and the mixing and blending of these materials before they go into the receiving mixer or truck.

Q. You made the remark, Mr. Wright, that the cement would not be affected much by gravity. Don't you really mean that the counteracting effect of the——

A. I mean as particles of the cement, Mr. Sellers, single particles—you see, cement is composed of a great number of chemicals, some heavy, some light, and some—by and large the cement has specific gravity of 3.155. By and large they are heavy things that tend to fall by gravity, but there are fine colloidal particles in there that have a tendency to move outward instead of following the downward flow.

(Testimony of Paul S. Wright.)

Q. Would you attribute the outward movement to the fact that the air through which the particles fall has a greater effect upon the light cement particles than it does upon the heavy particles of aggregate?

A. Yes. Those particular particles have a tendency to just go off any place. They are few. Others have a tendency to go downward.

Q. In the cross-examination, counsel referred to the Johnson patent 1,687,499, which is included in his Exhibit B for identification. I ask you, Mr. Wright, whether or not there is any disclosure here, any showing—rather, I refer you particularly to Fig. 4 of the drawing and ask whether or not the cement is not shown lying as a ribbon upon the top of [158] a body of aggregate? A. It is, yes.

Q. Do you distinguish that from the construction of the Johnson patent in which the aggregate surrounds, extends around the cement?

A. Yes. In this case the cement is ribboned over the top of the aggregate, and in the Johnson patent the cement is in the center with the aggregate concentrically around it, in the shaft in which the material is at the beginning of the fall, and during the fall it is intermingled, as we describe it.

Q. In this Johnson patent—you have read this, have you not? A. I have, yes, sir.

Q. Is there any teaching of weighing means, separate weighing means of the cement and of the aggregate? A. No, sir.

(Testimony of Paul S. Wright.)

Q. Is there any teaching of an independent cement hopper which is positioned within an aggregate hopper? A. No, sir.

Q. Is it not a fact that in the Johnson patent referred to, the flow of cement actually rides the flow of aggregate right down the chute?

A. That's right. The gate in the bottom of the hopper is closed, retarding anything at all happening to the cement. [159] When the gate is opened, the aggregate starts sliding down this slope of the hopper into the mixer, and the cement is ribboned across the top of the aggregate in a comparatively thin film.

Q. In Fig. 1 of the patent drawing, is the cement shown by the light material and the aggregate shown below it as the bottom? A. Yes.

Q. In other words, the cement actually rides the aggregate right down? A. That's right.

Q. Instead of each falling from their individual hopper, one rides the other down, is that correct?

A. Yes, that's right.

Q. Do you find in this disclosure any teaching of a spray of water which is sprayed into the shaft of aggregate and cement as it emerges from the hopper? A. No, sir.

Q. Would it be a fact that in the Johnson patent 1,687,499, to which we have referred, is it not a fact that the cement would not be protected from wind and the effects of wind by surrounding aggregates, as in the patent in issue?

A. I believe that the wind in blowing crosswise, across the top of that hopper, would tend to draw

(Testimony of Paul S. Wright.)

off cement, blow it away. In a high wind, you would lose some cement. I don't [160] know whether wind could get to the bottom part of that thing.

Q. But to the extent that was exposed to the atmosphere, the fact that the cement was lying on top would be——

A. That's right, if the air could get to it.

Q. That would be an inefficient arrangement?

A. It would to that extent be an inefficient arrangement if the wind could get to it and blow part of the cement away, yes.

Q. In the cross-examination counsel was referring to the patent to Robb, 1,750,244. I now call your attention to that patent, which is a part of Defendant's Exhibit B, and I ask you whether or not it is not a fact that in this patented construction the discharge of the aggregate hoppers, here sand on the left and gravel on the right, and then the cement hopper in the center, whether or not those are not rather widely spaced?

A. Yes, apparently that is true.

Q. Is there any concentric relationship between the discharge from the aggregate hoppers and the cement hopper in the Robb patent as in the patent in suit?

A. No. The discharge here is rather indiscriminate in this type of device.

Q. There is no free falling together of a shaft of material comprising a central core of cement and a surrounding body of aggregate? [161]

A. No, sir.

(Testimony of Paul S. Wright.)

Q. Now, is it not a fact, also, that because of the relatively wide spacing of the hoppers in the Robb patent, it is necessary to provide a relatively great gathering hopper which, in order to bring it to a focus, had to be relatively high, thereby increasing the over-all height of the plant?

A. Yes, that is true, yes.

Q. If these materials had been positioned close together, it would not have been necessary to have a discharge hopper with as great a width and therefore not as great a height and your over-all height of this plant could have been reduced?

A. That is true.

Q. With the reduction in over-all height of the plant, would that have reduced the cost of building the plant?

Mr. Lyon: I will object to that. There is no showing this man has had any experience in building plants whatever.

The Court: Overruled.

Mr. Lyon: No showing this man has any experience in the cost of building a plant.

The Court: Overruled.

Q. (By Mr. Sellers): Would it not also be a fact that with the height of the plant reduced, the cost of raising the materials to the top of the plant would also be reduced?

A. That would naturally result, yes. [162]

Q. Would that not mean that the cost of the production of concrete in the plant having lower height would be less? A. That would also result, yes.

(Testimony of Paul S. Wright.)

Q. Do you find in this Robb patent which we have been discussing, 1,750,244, any teaching of spraying water into the shaft of aggregate surrounding the core of cement? A. No, sir.

Mr. Sellers: That is all. Thank you. Have you any recross?

Mr. Lyon: Just a couple of questions.

Recross-Examination

By Mr. Lyon:

Q. Mr. Wright, if we drop two items of different weight from the same height, are they going to fall at the same rate or are they going to fall at different rates?

Mr. Sellers: I think I will object to that, your Honor. That is a question of physics. The witness has been qualified as an expert in the making of concrete. We have asked of the witness a theoretical question in physics which he may or may not know, but he hasn't been qualified as a physicist.

The Court: He has been talking about free fall, hasn't he?

Mr. Sellers: Yes. If he wants to put it in the terms of materials involved in this case, I have no objection, but [163] if he wants to put it in general terms of free falling bodies, I believe it is outside of his field.

The Court: Overruled. If the witness doesn't know, he can say so.

The Witness: I would say for the distance in fall there, any difference in the time of fall would be inconsequential.

Testimony of Paul S. Wright.)

Q. (By Mr. Lyon): But you believe there is a difference in time of fall between a heavy and a light object? A. I'll swear I can't remember.

Q. You don't know?

A. I don't remember offhand.

Q. But you believe that the——

A. I will say I don't remember the laws of falling bodies.

Q. You have testified, I believe, that upon the falling of cement and rock from the aggregate hopper, after they have left that, they have mixed, that there is some premixing that takes place during that time? A. Yes, sir.

Q. How does that occur, sir? What causes it?

A. As the material falls and the cement falls at the same time, the material is—the aggregates are concentric around the cement. As it leaves the aggregate hopper, the voids become somewhat drawn out, larger, and the cement being confined, has a tendency to go off into those voids, to go off [164] any place where it has room to go off, into the voids.

Then as it leaves the bottom of the collector cone—all right.

Q. I am not interested in what happens in the collecting cones. If we can confine our answers to what is happening in this falling shaft of aggregate and cement, I will be satisfied.

You testified, I believe, that during the time this is falling, there is a tendency of the cement to spread out this way, to spread out laterally and fill the voids? A. Yes.

Testimony of Paul S. Wright.)

Q. What causes that tendency?

A. The tendency of a thing to move off where it has room to move off to, in other words, to go off into any space. If it is confined, it has a tendency to go off into an adjacent void.

Q. If I take a quarter—well, I don't have one here, so I will take a nickel, and I drop it, is there any tendency for it to move laterally?

A. I think it would depend a lot on whether you dropped it in a flat position or a side position. I think if it were dropped as you have held it there, there would be a tendency for it to move a little bit sideways.

Q. What causes that?

A. I would say the pressure of air against the bottom [165] surface.

Q. Do you know anything about aerodynamics?

A. No, sir.

Q. Have you had any experience in it whatsoever? A. No.

Q. Have you ever had any education, practical or otherwise, concerning free falling bodies and their tendency or their movements?

A. I studied it in school, but it has been a terribly long time ago. I can't remember the various laws on that subject.

Q. You still believe that cement when in a state of free fall will tend to move laterally?

A. If it is confined and the voids are present for it to move laterally into, yes.

(Testimony of Paul S. Wright.)

Q. What causes it to move laterally into those voids while it is falling?

A. Cement in a silo will contain a considerable amount of air. It is fluffy material. It fluffs. Now, to a certain extent it has some air pressure inside of it due to the air content. If it is under pressure, under weight, the air has a tendency to move out, and in moving out pushes the cement with it. In other words, if there are voids present, what causes the cement to fluff, the air is in there, would tend to push the cement out in the voids. [166]

Q. So when you are weighing cement in the hopper, you are weighing the air that is trapped in it, too, is that right? A. I don't know.

Mr. Sellers: I object to that, your Honor. That is misleading the witness. Counsel knows very well that is not the case. There has been no testimony to that effect.

Mr. Lyon: He has just testified there is something different about the fall of cement than there is, for example, of rock.

The Court: Sustained. I think it is up to the court to decide what weight should be given to the testimony of a witness according to his statement as to his previous experience, study and education.

Mr. Lyon: All right, sir. I have no further questions.

The Court: I want to ask the witness a question.

Do you make a distinction between the term hopper and bin?

(Testimony of Paul S. Wright.)

The Witness: In my own mind there is no distinction, your Honor. I would say hoppers are sometimes referred to as bins and bins are sometimes referred to as hoppers. I think they are synonymous terms.

The Court: Well, in referring to the Fig. 1 of the patent, the containers at the top, in your opinion, could be called bins or hoppers?

The Witness: Yes, sir. They are sometimes referred to as [167] the primary aggregate bins and sometimes the primary aggregate hoppers.

The Court: All right. That's all I wanted to know.

The Witness: Yes, sir.

The Court: Any other questions?

Mr. Sellers: No more, your Honor.

The Court: You may step down.

(Witness excused.)

The Court: Call your next witness.

Mr. Sellers: Mr. Pearman, will you take the stand, please?

CLYDE PEARMAN

called as a witness by and on behalf of the plaintiff, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name, please?

The Witness: Clyde Pearman.

The Clerk: Will you spell your last name?

The Witness: P-e-a-r-m-a-n.

Direct Examination

By Mr. Sellers:

Q. Mr. Pearman, what is your occupation, please?

A. I am in the ready-mix concrete [168] business.

Q. Do you own concrete batching plants?

A. Yes, sir, two of them.

Q. Two of them. Where are they located, please?

A. One in Gardena and one in Stanton, California.

Q. You were here yesterday when testimony was given concerning the Stanton plant. Is that the plant that you own? A. Yes, sir.

Q. In that plant is there an independent cement hopper positioned between sections of an aggregate hopper? A. There is, yes, sir.

Q. Are there separate weighing means for the two hoppers? A. Yes, sir.

Q. Does the cement hopper discharge downwardly through the aggregate hopper, through the discharge of the aggregate hopper?

A. Well, you might call it that. They both discharge together.

The Court: Will you keep your voice up? The attorneys have to hear you.

The Witness: I am sorry, your Honor.

(Testimony of Clyde Pearman.)

Q. (By Mr. Sellers): Do you have separate control valves at the discharge of the cement and aggregate hoppers? A. I do.

Q. From whom did you purchase your plant, the one at [169] Stanton?

A. California Batching Equipment, Merle Stromberg.

The Court: I am sorry. You will have to speak a little louder. I think you can speak a little louder.

Q. (By Mr. Sellers): Will you please repeat your answer?

A. I bought my Stanton plant from the California Batching Equipment Company, that is Merle Stromberg.

Q. May I ask, Mr. Pearman, do you have any disability? Are you ill so that it prevents you from speaking louder?

A. No. I just didn't want to holler and disturb somebody, that's all.

Q. Well, we are all awake. Your second plant, is that the plant in Gardena? A. Yes, sir.

Q. From whom did you purchase that?

A. I bought that from Merle Stromberg.

Q. Did Mr. Stromberg build those plants upon your order? A. Yes, sir.

The Court: Did he build them according to your specifications?

The Witness: No, he didn't build the whole plant according to my specifications, no, sir.

The Court: Did you have any plans and specifications?

(Testimony of Clyde Pearman.)

The Witness: Yes, sir, that Merle had made up, Mr. Stromberg had made up. [170]

The Court: Did he make the plans and specifications, himself?

The Witness: Yes, sir.

The Court: And he built the plant according to his plans and specifications?

The Witness: No, sir. I told him how I wanted my plant and we worked it up from there.

The Court: What do you mean, you told him how you wanted your plant? You say your plant. You have two of them. The plants at Stanton and Gardena are just exactly alike, are they?

The Witness: No, sir, they are not. My plant at Gardena is eight years old and my Stanton plant is a modern plant.

Q. (By Mr. Sellers): The court means the principle involved in operation, that they both have the central cement hopper and the aggregate hoppers at the side. A. Yes.

Q. Generally the operating characteristics are just the same, but one is a much better plant than the other one? A. That's right.

The Court: Did you tell him you wanted the cement hopper in the middle?

The Witness: I did. That was one thing that I insisted upon. [171]

The Court: When did you first build your Gardena plant?

The Witness: Eight years ago.

The Court: Eight years ago?

(Testimony of Clyde Pearman.)

The Witness: Yes.

The Court: All right.

Mr. Sellers: Thank you, your Honor.

Q. I believe you have told his Honor that you insisted upon the cement hopper being positioned where it is positioned in your Stanton plant.

A. I did.

Q. Why did you insist upon that?

A. Well, my main reason was for the space. It didn't take up the space. I wouldn't have to build a wider plant.

Q. You could make your plant more economically? A. More compact.

Q. More compact. Were there any other reasons? A. That's all.

Q. That was the only reason? A. Yes, sir.

Q. Did you ever talk to Mr. Denny about your plant at either Stanton or Gardena?

The Court: Just a minute. Who is Mr. Denny?

Mr. Sellers: Oh, I beg your pardon. Mr. Denny is of counsel. I should have introduced him.

The Court: Let's find out who we are talking about. [172]

The Witness: I may have. I don't recall. I talked to two gentlemen. He may have been one of them, but their names I couldn't give you.

Q. (By Mr. Sellers): You don't remember talking to Mr. Denny one time Mr. Buckler was also present, Mr. Buckler being the other gentleman at the counsel table? A. At Stanton?

(Testimony of Clyde Pearman.)

Q. I don't know where. I am asking you if you have had a conversation with the two of them.

A. Yes, sir. I had a conversation with two men at one time. That was at Stanton. I believe I recognize this other man.

Q. That conversation took place at your Stanton plant in Stanton, California?

A. I believe it did.

Q. Who else was present in addition to these two men?

A. Mister, that has been a long time ago. I couldn't tell you.

Q. You don't remember whether anyone else was present or not? A. I don't.

Q. Did you at that time say to Mr. Demny and to Mr. Buckler, "This plant is just like the Johnson plant"? A. No, sir; I never did.

Q. You didn't say that? [173]

A. No, sir.

The Court: May I inquire, when you built the Gardena plant, did you know anything about the Johnson plant?

The Witness: I had never seen a Johnson plant.

The Court: When you built the Stanton plant, did you know anything about the Johnson plant?

The Witness: No, sir; I didn't.

The Court: When did you first find out about the Johnson plant?

The Witness: When they wanted to sell me a plant about eight months ago, and I had to go to Las Vegas, Nevada, to see the plant.

(Testimony of Clyde Pearman.)

Q. (By Mr. Sellers): Had you ever seen plants of the type in which the cement hopper is positioned between the aggregate hopper sections?

A. Not before I built mine; no.

Q. Never before? A. No, sir.

The Court: Just a minute. Let me find out something about it. You say you had never seen this before, and yet when you talked to the defendant about the Gardena plant, you insisted upon your cement hopper being in the center. Why did you insist on it being in the center if you had never seen it done that way before?

The Witness: Well, I had a little—— [174]

The Court: You are not talking to me. Talk so that counsel can hear you.

The Witness: I had a little belt loader when I first started in and I was in that three years that I run that belt loader.

The Court: What do you mean by a belt loader?

The Witness: That is a conveyor running on the ground, loading the trucks in the back of the trucks.

The Court: All right.

The Witness: That was where I conceived the idea of putting up another plant. In fact, I had Mr. Stromberg to come out to give me a bid on a cement silo, that is a big tank you store your cement in. After talking to him and getting the bid, I figured I may as well put the other money in a plant and build a plant, and that, as far as I knew at the time, my cement hopper, was my own idea. Now, I did not know Johnson even had it where the cement bin——

(Testimony of Clyde Pearman.)

The Court: You are the one that told Mr. Stromberg to put the cement hopper in the center?

The Witness: I did; yes, sir.

The Court: When you told him that, what did he say?

The Witness: He didn't say nothing. He built it according to the specifications I had.

The Court: Did he say he had never seen one like that before? [175]

The Witness: He didn't say; no, sir.

The Court: You told him where you wanted it and he went ahead and built it; is that right?

The Witness: Yes, sir.

The Court: You say you are the one that conceived it?

The Witness: Yes, sir; I did.

The Court: He didn't have anything to do with putting it in the middle?

The Witness: Not in building the hopper; no, sir. He built the bins and everything else to specification.

The Court: All right.

Q. (By Mr. Sellers): You have been in the concrete business how long, Mr. Pearman?

A. I have been in my one place in Gardena for eight years, and I had three years' experience before that.

Q. Three years' experience before that. Was that in the conveyor type business you referred to?

A. Yes, sir.

(Testimony of Clyde Pearman.)

Q. And when you decided to put up your first concrete batching plant, the plant in Gardena, didn't you look around at other plants and examine them and inquire as to cost of production and efficiency of operation before you decided what type of plant you wanted? A. No, sir; I didn't.

Q. You just went out and tried to build your very first [176] plant. How much did it cost, that Gardena plant? A. About $28,000.

Q. Did you know there were other batching plants around in this area? A. I did.

Q. And you called in Mr. Stromberg to invest $28,000 and didn't even bother to check with other forms of construction in this area to see whether or not they differed?

A. I never checked into their prices; no, sir. I have seen a lot of plants.

Q. That wasn't my question. Whether or not these plants differed, you didn't check on that point? A. No; I did not.

Q. You didn't check on whether or not these plants——

The Court: May I interrupt just a minute?

Mr. Sellers: Surely.

The Court: You say you have seen a number of plants?

The Witness: Yes.

The Court: Had you ever seen any plants in which the cement hopper was in the center?

The Witness: No, sir; I did not.

The Court: You didn't get that idea from looking at some other plant?

(Testimony of Clyde Pearman.)

The Witness: Your Honor, there is only one Johnson plant that I know of in Los Angeles. There are two now that I know [177] of in Los Angeles.

The Court: I am talking about when you built this Gardena plant.

The Witness: No, sir; I didn't. That was my own idea and nobody else's.

The Court: In going around and looking at these other plants and becoming acquainted with them, you didn't see any?

The Witness: No, sir.

The Court: In which the cement hopper was in the center?

The Witness: No, sir; I never did.

The Court: All right.

Q. (By Mr. Sellers): You have stated you didn't go around and look at other plants to determine whether they were different? You didn't make any such examination before ordering in Mr. Stromberg to spend $28,000?

A. I had looked at plants.

Q. What did you see?

A. But I have never went out and asked for prices on plants.

Q. Now, wait a minute. I wish you would answer my question, please. My question was not in regard to prices this time. My question is, prior to the time you called in Mr. Stromberg to invest $28,000, did you or did you not look at other plants to see how they differed?

(Testimony of Clyde Pearman.)

Mr. Lyon: Your Honor, if this is for the purpose of [178] impeaching his own witness, I am going to object. If it has some other purpose, then I would suggest we continue.

The Court: I don't know what the purpose is. Objection overruled. He can't impeach his own witness. Objection overruled.

Do you remember the question?

The Witness: Yes, sir. I never looked—the only way I have looked at these plants is from the outside. I have never been inside of these plants.

Q. (By Mr. Sellers): You didn't, if I understand your answer correctly, at that time or previous to calling in Mr. Stromberg, you didn't go out and see what types of plants were available and how much they cost?

A. No, sir; I did not.

Q. And you didn't make any effort to determine the cost of the other plants in this area?

A. No: I did not.

Mr. Lyon: Your Honor, I object. These questions are repetitive questions asked a moment ago.

Mr. Sellers: The questions a moment ago were not answered.

The Court: The objection is overruled. But now I want to straighten something out. When Mr. Stromberg built the Gardena plant, you told him how to build it, and he put the cement container or bin or hopper in the center. [179]

The Witness: Yes, sir.

The Court: According to your directions.

(Testimony of Clyde Pearman.)

The Witness: Right.

The Court: When you built the Stanton plant, did you tell him where to put the cement hopper?

The Witness: I wanted it built on the same order as my Gardena plant, the weighing hopper; yes, sir.

The Court: Did he discuss the matter with you in any way, as to whether that was the proper location?

The Witness: No, sir.

The Court: You told him what you wanted and he went ahead and built it?

The Witness: Yes, sir.

The Court: When he built the Gardena plant, did he sell you the entire plant? Did he come down and sell you the entire plant as a whole or did he just build the plant according to your plans and ideas?

The Witness: Mr. Stromberg built my plant completely with drawings and everything else as worked out by him and myself.

The Court: When you came to building the Stanton plant, was that the same procedure?

The Witness: No, sir. The only thing I asked about my Stanton plant was that the weighing batcher be made like my Gardena plant.

The Court: How about the cement hopper in the center? [180]

The Witness: It is there; yes, sir, that is what I meant.

(Testimony of Clyde Pearman.)

The Court: You told him that is what you wanted?

The Witness: Yes, sir.

The Court: All right.

The Witness: But at the present time, if I make changes, I am building another plant now and the cement hopper is not in the center.

Mr. Sellers: I move that be stricken as not responsive to any question.

The Court: It may go out.

I notice it is 11:00 o'clock. I think we better take our morning recess. We will recess until 10 minutes after 11:00.

(Recess.)

The Court: You may proceed.

Q. (By Mr. Sellers): If I have understood your testimony correctly, Mr. Pearman, you specified to Mr. Stromberg that you wanted the cement hopper positioned in the position it is now located in the Gardena and in the Stanton plants.

A. That is correct.

Q. That was true at the time you built the Gardena plant? A. Right.

Q. You have stated that at the time you built the Stanton plant, you wanted it positioned in the center for [181] purposes of compactness.

What was your reason in telling Mr. Stromberg you wanted it positioned in the center at the time you built the Gardena plant eight years earlier?

A. Well, the piece of property that I have my

(Testimony of Clyde Pearman.)

plant built on is 126 by 142 and I had no room there even to park my trucks on that piece of property, and my plant had to be a compact plant.

Q. Did you have any other reason in addition to compactness? A. No, sir.

Q. At the time of the building of the Gardena plant? A. At the time, no; I didn't.

Q. And then at the time you built the Stanton plant, did you have the same scarcity of room that time that you had in Gardena?

A. No, sir. I have three acres in Stanton.

Q. Then why in building the Stanton plant did you decide to put the cement hopper in the center?

A. That is a question that would be hard to answer.

Q. Supposing you try.

A. I will try, sir. The reason I had it in the center, I wanted it built like my Gardena plant.

Q. Why did you want it built like your Gardena plant?

A. That would be something that would be hard to say. [182] The plant was built that way and that is the way I wanted it.

Q. That is hardly an answer, Mr. Pearman.

A. I realize that.

Q. Will you try to stop and remember? You have been operating your Gardena plant for eight years? A. That is right.

Q. You were about to build a new plant which you have stated is a much bigger and better plant, I believe. A. Yes; it is.

(Testimony of Clyde Pearman.)

Q. How much did the Stanton plant cost?

A. Close to $60,000.

Q. All right. You had been operating the Gardena plant for eight years. You decide to build a new plant and to invest $60,000, and you asked Mr. Stromberg to build you a new plant? A. I did.

Q. You told him you wanted it just like the earlier Gardena plant as far as the positioning of the cement hopper in the center?

A. The weigh batcher; I did.

Q. Why did you do that? You must have had a reason. You are going to invest $60,000. I am trying to refresh the witness' recollection, Mr. Lyon. I think in human experience a man doesn't invest $60,000 without any pretty fair reason, and I would ask you to stop and think what that reason [183] could have been.

Mr. Lyon: Your Honor, I would like to object to the question as argumentative.

The Court: Overruled.

The Witness: Well, I had good luck with my Gardena plant, very good luck with my Gardena plant, and I wanted to have the same results that I am having at Stanton.

Q. (By Mr. Sellers): You had been in business in competition for eight years, selling mix from the Gardena plant. You decided to put $60,000 in the new plant and you wanted it just like the earlier one because the first one had been satisfactory?

A. Yes.

Q. During that intervening eight years, had you had the opportunity of observing any other plants

(Testimony of Clyde Pearman.)

in which the cement hopper was not positioned between the aggregate hoppers? A. Yes, sir.

Q. Had you not considered whether or not in building your second plant, costing $60,000, it might not be desirable to go to a new form in which the cement hopper was not positioned between the aggregate hoppers?

A. No. I could have went to a new form; but I didn't. It is like I say, that I have had good luck with my Gardena plant.

Q. Did you talk to any of your competitors about how [184] their plants operated?

A. Yes, sir.

Q. What did you conclude upon talking to them and considering their statements in comparison with your own experience? What did you conclude?

A. Well, there is a lot of plants and when you go to a concrete plant and ask one of your competitors a question, he will lie to you. Concrete is concrete. The plant itself doesn't have a thing to do with making concrete.

Q. The plant itself doesn't——

The Court: Just a minute here. You say the plant doesn't have anything to do with the making of concrete?

The Witness: I mean the making of quality of concrete.

The Court: The quality of concrete?

The Witness: That's right. Any plant with the right aggregate, the right amount of cement, will mix concrete as well as any other plant.

(Testimony of Clyde Pearman.)

The Court: Regardless of how the cement is placed in the aggregate?

The Witness: As long as your cement is not put in the head of the barrel.

The Court: What do you mean by that, head of the barrel?

The Witness: That is in the front end. By dumpings water and cement into your barrel first, and your cement will cake to the front of the barrel and it won't mix through your load. [185] But you can take and dump cement in the middle of a load or the back end of the load; and the State, the County and the City requires that the mix be mixed so long, so many minutes.

The Court: So it doesn't make any difference whether you put the cement on top of the load?

The Witness: No, sir: it does not.

The Court: In other words, in your opinion, you can put in the sand and the gravel and the cement on top?

The Witness: That's right.

The Court: And get just as good a mix?

The Witness: That's right.

The Court: As if the cement had been dispersed through the entire load?

The Witness: You can get just as good a mix, but it may take just a little longer. The City and the State and the County requires that your load mix so many minutes before it is dumped.

The Court: Your mixing comes in the time element; is that right?

(Testimony of Clyde Pearman.)

The Witness: That is correct.

The Court: And not the way the aggregate or the cement is placed in the mixing hopper?

The Witness: That's right.

Q. (By Mr. Sellers): You had been operating your Gardena plant for eight years and you decided to build the Stanton [186] plant. You discussed the matter with competitors who had different types of plants? A. I did.

Q. And after discussing the operation of their plants with them and considering the operation of your own plant for eight years, you decided to build a new $60,000 plant constructed as yours had been? A. That's right.

Q. And you have stated in answer to my question as to why, that concrete was concrete and that frequently you encounter, shall we say, misrepresentations in your field. I ask you if there was any other reason? Did you not find, if I may lead, that your experience was satisfactory as compared with the experience of your competitors, and therefore you wanted your type of plant for that reason?

A. That's right.

Q. How does it happen, if you wanted compactness, when you were building that Gardena plant, that you didn't bring all the hoppers together and make the cement hopper integral, one part, with the aggregate hoppers upon the side?

A. Because I wanted two scales.

Q. Why did you want two scales?

A. I can be more accurate wtih my cement and

(Testimony of Clyde Pearman.)

my aggregate.

Q. But didn't that cut down on the compactness? Didn't [187] you have to have more room?

A. Not a bit; no, sir.

Q. Now, let me ask, if I may understand, didn't you——

The Court: May I interrupt just a minute? You said you wanted two scales in your Gardena plant. Did you have a separate scale on your cement hopper?

The Witness: Yes, sir.

The Court: And one on your aggregate hopper?

The Witness: Yes, sir; right.

The Court: Where did you get that idea of having a scale upon the two, two separate scales?

The Witness: That idea came to me when we first ordered the plant. I wasn't going to have it that way.

The Court: You mean when you first ordered it from Mr. Stromberg?

The Witness: Right.

The Court: All right.

The Witness: But the reason I had that scale put in there is, every now and then a truck will come back. A man will order so many yards of concrete and won't use that much yardage of concrete, and my truck will come back and maybe it has got a yard of concrete left on the truck. The driver says, "I have got a yard of concrete in my truck. I can only load two and a half yards or five yards of concrete in that truck."

(Testimony of Clyde Pearman.)

The driver may have a yard and a quarter of concrete [188] on his truck, and if I have my aggregate hopper and my cement hopper separated and he comes back and I do put three yards of aggregate and cement in my weigh bins, I can drop my aggregate out, and if I have too much aggregate, I can get the rest of my cement in there regardless, which makes a good concrete. It won't be the proper mix it should have been, but I will have all the cement in there, if I have to hold back the rock and sand.

The Court: Did you know of any other plants where they had the cement and the aggregate hopper on different scales?

The Witness: I had never seen one at the time I built my Gardena plant; no, sir.

The Court: Where did the idea come from, then? Did it come from you or from Mr. Stromberg?

The Witness: It came from me.

The Court: That was your idea?

The Witness: Yes, sir.

The Court: You mean to say it was your idea to have a cement hopper on a scale so it could be weighed while it was surrounded by the aggregate hopper?

The Witness: Yes; it was.

The Court: You had never seen that before?

The Witness: Never had; no, sir.

The Court: All right.

Q. (By Mr. Sellers): You have stated that the construction, [189] having the independently mov-

(Testimony of Clyde Pearman.)

able cement hopper would be just as compact as a construction having an integral cement hopper in the same hopper with the aggregate hopper. I ask you, Mr. Pearman, is it not a fact that you must have space upon opposite sides of your cement hopper and at the ends in order to permit the free movement of your cement hopper?

A. It is.

Q. Therefore, you are going to have a greater area where you have an independently movable cement hopper; is that correct?

A. You would have a bigger area; yes.

Q. That is less compactness, then; isn't it?

A. No, sir; not in a plant.

Q. Why did you put a valve on the cement hopper?

A. To control the flow of the cement, to direct the flow of the cement.

Q. And where did you put that?

A. Well, there is a hand valve and there is a butterfly in the cement hopper. Butterfly is what you are talking about, I believe.

Q. Just a means to control the flow of cement from the bottom of the——

A. That is the butterfly, yes, sir; and that is in the bottom of the cement.

Q. Why did you put it down there? [190]

A. To control the flow of cement.

Q. Why didn't you have your outlet from your hopper, your cement hopper, at the side of the hopper, instead of down at the bottom?

(Testimony of Clyde Pearman.)

A. It could have been.

Q. It could have been up at the side?

A. Yes, sir.

Q. What would have happened to the cement in the bottom of the hopper if your outlet had been up at the side above that?

A. The outlet you are talking about, not a hopper.

Q. Let me reword my question.

A. I am sorry.

Q. Supposing in your cement hopper you had placed the discharge outlet up at the side and spaced above the bottom of the hopper, could you have done that? Would that have been workable?

A. No, sir.

Q. Could you imagine such a hopper in a concrete plant with the discharge outlet up in the side as we have just mentioned? If you would put a valve up there, would that make it operate?

A. If your discharge to your hopper was low enough to run into your bin; yes.

Q. Supposing we have it up on the side, say, up above [191] the middle, what would happen to all the cement in the hopper down below that outlet?

A. It would stay there.

Q. It would never get out?

A. No, sir.

Q. Therefore, would you not always put the discharge outlet to your cement hopper at the bottom so that all the cement would fall out?

A. That's right.

(Testimony of Clyde Pearman.)

Q. If you didn't put it down there, you would not get accurate weighing; would you?

A. No, sir.

Q. So doesn't it follow inherently from the fact that you are working with concrete, that you put the discharge outlet where all the product will fall from the hopper? A. That is correct.

Q. And that is right at the very bottom?

A. Yes, sir.

Q. You can't conceive of putting it anywhere else and getting all the cement out; can you?

A. No, sir; you can't.

Q. What are the overall dimensions of the aggregate bins, storage bins, at your Stanton plant, if you remember? A. The top bin?

Q. The storage bins; yes, sir. [192]

A. I would say they were about 14 by 28.

Q. 14 by 28?

A. That would be just a guess. I wouldn't say accurately that that was it.

Q. 14 feet by 28 feet? A. Yes.

Q. What are the overall dimensions of the aggregate weigh hoppers? A. About 12 by 6.

Q. 12 by 6. In other words, the hoppers are very much smaller than the—— A. Yes, sir.

Q. Do you own your own ready-mixed trucks into which the concrete is dumped from your weigh batch plant? A. I do.

Mr. Lyon: I will object to that, your Honor. That is immaterial.

The Court: Overruled.

(Testimony of Clyde Pearman.)

Q. (By Mr. Sellers): You have voiced the opinion, I think, Mr. Pearman, that you would get satisfactory mixing if you dumped the cement right on the top of the aggregate which went into the waiting truck, let us say.

The Court: No; now, he didn't say that.

Mr. Sellers: Didn't he say that, your Honor?

The Court: He didn't say that at all. Don't put any [193] words into his mind. He didn't say that.

Now, I want to ask him a question.

I want to show you a drawing on patent 1,687,499. According to Fig. 4, the aggregate is on the bottom, and the cement is on the top. There is a ribbon of cement. In your opinion, it doesn't make any difference, does it? That cement would mix all right either in the mixing hopper or in the truck?

The Witness: The cement won't mix in the mixing hopper. It has to be in the truck.

The Court: All right. Now, this goes down, the aggregate is on the bottom and the cement is on the top, or a layer on the top.

The Witness: Yes, sir.

The Court: It goes down into the hopper.

The Witness: Yes.

The Court: And then it is all dumped into the mixing truck?

The Witness: That is true.

The Court: You say that that will make a satisfactory mix?

The Witness: Yes, sir; it will.

The Court: And this cement doesn't have to be

(Testimony of Clyde Pearman.)

intermingled between the aggregate?

The Witness: No, sir; it doesn't. The cement, as long [194] as it doesn't hit the head of the barrel first——

The Court: Well, this wouldn't hit the head of the barrel first.

The Witness: No, sir.

The Court: There is aggregate down at the bottom.

The Witness: Yes, sir.

The Court: The cement lays on the top.

The Witness: Yes, sir.

The Court: When this is all dumped in the truck, it will make a satisfactory mix?

The Witness: Yes, sir; it will.

Mr. Sellers: May I have that, your Honor?

The Court: Yes.

Q. (By Mr. Sellers): May I ask, Mr. Pearman, why, when you were having your Gardena plant built, why didn't you ask to have an arrangement incorporated into the plant that would be arranged as we have in this figure that the court has just referred to comprising figure No. 1 of the Johnson patent 1,687,499?

The Court: I referred to Fig. 4. I didn't refer to Fig. 1.

Mr. Sellers: I thought you pointed to this one.

The Court: Isn't this 4?

Mr. Sellers: That is Fig. 4. Didn't you refer to this, also? [195]

The Court: I referred to all of this, but——

(Testimony of Clyde Pearman.)

Mr. Sellers: This is Fig. 1 and this is Fig. 4 below.

The Court: Oh, excuse me. I didn't see the Fig. 1.

Mr. Sellers: Yes.

The Court: All right.

Mr. Sellers: Fig. 1 is the upper figure and Fig. 4 is below.

The Court: All right.

Q. (By Mr. Sellers): Why, Mr. Pearman, didn't you ask to have Mr. Stromberg incorporate into your plant the construction of Fig. 1 and Fig. 4 of the Johnson patent to which I have just referred?

Mr. Lyon: Your Honor, I will object to that. There is no showing he ever knew of such a structure.

The Court: Sustained. It is argumentative. The only thing I asked is whether or not the cement would mix satisfactorily with the aggregate in a situation like that, because you have emphasized this ribbon condition, and according to the testimony of the previous witness, that was not a satisfactory way in which to deposit the aggregate and the cement into the——

Mr. Sellers: I don't believe, your Honor, we said it wasn't satisfactory. We said our method had advantages this does not have.

The Court: Well, my understanding from the testimony was [196] that the cement would ball like that, it wouldn't mix satisfactorily.

(Testimony of Clyde Pearman.)

Mr. Sellers: No.

The Court: There had to be a diffusion of the cement between the aggregates in order to get a satisfactory mix.

Mr. Sellers: The witness has stated, your Honor, it is a matter of time and that it is a matter of how long it takes to mix after it gets into the truck.

The Court: This whole batch goes into a revolving drum on a truck.

Mr. Sellers: It can and usually does.

The Court: My question was, my inquiry was whether or not the cement had to be intermingled between all of the aggregate or whether or not the cement could be put in as a whole or as a group. This witness said if it isn't put in first, if it doesn't come in first, it is satisfactory, and it doesn't make any difference how it goes in, whether in the middle or on the top.

Mr. Sellers: Thank you, your Honor.

Q. Mr. Pearman, have you had experience with plants in which the cement is fed in on a platform of aggregate, into the truck as we see it in Figs. 1 and 4 of this patent?

A. I haven't had no experience with this. I have with this.

Q. Well, these are the same, Mr. Pearman. This is another [197] view of the same construction?

A. Yes, sir.

Q. You have had experience?

A. Yes, sir.

Q. Was that with a plant before or after you

(Testimony of Clyde Pearman.)

built the Gardena plant?

A. That was with my Gardena plant.

Q. That was with the Gardena plant. The Gardena plant has a flow of the cement coming down on top of the aggregate?

A. It could be. That is according to the operator.

Q. I am referring to the showing here in which the aggregate is down below and the cement is riding along on the top in a ribbon form as we see in Fig. 4. Now, haven't you stated that in your Gardena plant you have the cement hopper positioned between the aggregate hoppers in your Gardena plant? A. Right.

Q. And yet you say you have seen this type of operation in your Gardena plant? A. Yes, sir.

The Court: And under that type of operation do you get any balling of cement?

The Witness: You can get balling of cement, sure, your Honor, if your water is put in too fast, as dry load. Your aggregate is what breaks your cement up, will break the balling of the concrete up. But if your water is put in there [198] too fast, it will cause your cement to ball.

The Court: It is the water, then, that causes the cement to ball?

The Witness: That's right; too wet a load.

The Court: And not the way the cement and the aggregate are put in together?

The Witness: No, sir; it isn't. That does not cause it to ball.

(Testimony of Clyde Pearman.)

Q. (By Mr. Sellers): Explain that. If you put in too much water, does it ball, or if you put in too little water?

A. When you have got a dry load, when your water is at 75 per cent—when 75 per cent of your water is put in your load and the other 25 per cent is put in at the last, very seldom you will have any balling of concrete. Your water and cement droping in too fast is what causes the balling of concrete of cement.

Q. Mr. Pearman, if I may ask you another question—— A. Yes, sir.

Q. ——if you knew about the arrangement you see in the patent you just had before you today, and you know about your—no, let me ask you this. Did you know about that arrangement at the time you ordered your Stanton plant?

A. Which arrangement?

Q. The arrangement you have been looking at in the patent to Mr. Johnson, 1,687,499. Did you know about that [199] arrangement at the time you ordered your Johnson plant?

A. I never ordered a Johnson plant.

Q. I beg your pardon. The Stanton plant.

A. Yes, sir; I knew about the arrangement.

Q. You did know about that arrangement?

A. Yes, sir.

Q. And in preference to that arrangement, you ordered another plant identical to the one you had made at Gardena? A. Yes.

Mr. Sellers: Thank you. Your witness.

(Testimony of Clyde Pearman.)

Cross-Examination

By Mr. Lyon:

Q. Mr. Pearman, in your Gardena and Stanton plants, are you constantly mixing cement?

A. Yes.

Q. Would you mind giving us some estimate of the volume of cement you put out per week or per month, if you can give us figures at both, please?

The Court: You mean Gardena or both plants?

Mr. Lyon: Either one or both, whichever one he wants to tell me about.

Q. I don't mean to probe into your business, sir, but if you can give me that.

A. Our Gardena plant is averaging anywhere from 200 to [200] 300 yards a day, and we put out as high as 600 yards a day at Stanton.

Q You have been doing that constantly since the plants went in?

A. No; I won't say that is constantly. As an average—no; I won't say that.

Q. But you have been putting out a large number of yards of cement? A. Yes.

Q. From those two plants? A. Yes.

Q. So that you have had experience with the results of the concrete that you have mixed insofar as people you sell it to? A. Yes, sir.

Q. They don't complain it isn't mixed correctly or it doesn't batch correctly?

A. When you are dealing with the public, you can't satisfy everybody.

(Testimony of Clyde Pearman.)

Q. Mr. Pearman, in your business, what does a hopper designate?

A. A hopper is a discharge outlet, it is an element for discharging.

Q. Is it an element for storage or just discharging? A. No, sir; for discharging. [201]

The Court: Isn't there such a thing as a storage hopper?

The Witness: Well, you could call it a storage hopper. It is generally called bins, storage bins, that is, a bin for storage.

The Court: Do you make a distinction between bins and hoppers?

The Witness: Well, hoppers on our concrete plant is used after it is dropped from the bin into the hopper to be discharged into a truck.

Q. (By Mr. Lyon): In your business, does hopper designate only a structure of this type as shown in this Johnson patent, such as the aggregate hopper? Is that what hopper means to you in your business? A. Yes; it does.

Q. Does it have any other meaning?

A. No, sir.

Q. That's all it means in your business?

A. Yes, sir.

Q. Have you ever seen any of the large type of Johnson plant other than the one in suit?

A. Yes, sir; I seen one.

Q. How was that arranged; do you remember?

A. The inside of it, you mean?

(Testimony of Clyde Pearman.)

Q. The hoppers for the various aggregates and cement.

A. No, sir; I couldn't tell you that. The one I have [202] seen, I have only seen from the street.

Q. Have you ever seen any batching apparatus or plants wherein the aggregate is dumped into your mixing truck at one station and sand added at another and cement added at a third?

A. Yes, sir.

Q. How far apart would these various storage spots for these materials be, roughly?

A. We have one plant in Hawthorne, and I would say the rock and the sand is 200 feet apart.

Q. Where is the cement with relation to those?

A. The cement is put in when the sand is put in.

Q. So you drive your truck up under and load it with rock and then drive over to another place and drop your cement and sand in?

A. Yes, sir.

Q. Do you obtain a satisfactory concrete by that method?

A. They are approved by the City, State and County.

Q. Is it just as satisfactory as the cement you get out of this? A. Yes, sir; it is.

Mr. Lyon: That's all.

Mr. Sellers: That's all, your Honor.

The Court: May this witness be excused?

Mr. Sellers: Yes, your Honor; he may. [203]

The Court: You may be excused.

(Witness excused.)

Mr. Sellers: Will you take the stand, please?

HAROLD E. BUCKLER

called as a witness by and on behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you please state your name?
The Witness: Harold E. Buckler.
The Clerk: Will you spell your last name?
The Witness: B-u-c-k-l-e-r.

Direct Examination

By Mr. Sellers:

Q. By whom are you employed, Mr. Buckler?

A. The C. S. Johnson Company.

Q. In what capacity?

A. Sales manager for the eleven western states and two provinces of Canada.

Q. How long have you been so employed?

A. 15 years.

Q. The eleven western states, does that include California? A. Yes; it does. [204]

Q. Mr. Buckler, I hand you a copy of the Johnson patent which is here in suit, which is identified as Plaintiff's Exhibit No. 10 for identification, and ask if you are familiar with that type of construction? A. Yes; I am.

Q. How is that identified in the sales of your company, how do you refer to that, that type of construction?

A. As a hopper within a hopper with individual scales for cement and cumulative weighing of aggregate.

(Testimony of Harold E. Buckler.)

Q. Is that also known as a concentric discharge batcher construction? A. Yes; it is.

Q. Is that particular type of construction of value to your company, has it been of value to your company? How do its sales compare? Have you sold many of those?

A. Tremendous sale value.

Q. What has been the public reactance and acceptance of that type of plant? By public, I mean people who are interested in buying batching plants.

A. Very good.

Q. Is it a fact that the construction is a feature which has enabled you to sell these plants in areas in which the plant could not compete pricewise?

A. That is true.

Q. May I ask the manner of carrying on the sales of [205] these batching plants by your company?

A. We have distributors in each state and the two provinces of Canada, which is a part of my territory, and these distributors in turn employ six to 18 or 20 men who are out in the field making contacts. They are regularly classified as construction machinery houses, and our equipment is—they represent our equipment.

The Court: Do you sell the plant as a whole erected, or do you sell the equipment that goes into the plant?

The Witness: We sell all of the component parts that go to make up the batching plant.

(Testimony of Harold E. Buckler.)

The Court: Then the party who buys it has to put up the building and structure?

The Witness: Generally speaking, the concrete footings are handled by the buyer and the steel erection. We have a supervising engineer who assists through the erection of the entire plant.

The Court: Is this a steel plant?

The Witness: The modern concept of a batching plant is it is steel overhead, hoppers, elevators and cement storage silos are component parts of the complete batching plant.

The Court: When you sell the plants, you sell them erected and ready to go?

The Witness: We sell these plants f.o.b. factory and the consumer pays the freight. He pours the concrete footings, [206] he erects the plant, which we fabricate, under the supervision of our service engineer.

The Court: You sell it f.o.b., then?

The Witness: F.o.b. our factory.

The Court: All right.

Mr. Lyon: I did not understand the answer to the question. Do I understand you to say they do not sell the batching equipment separately; is that the testimony?

The Witness: No; I said—what was the question and I will answer it.

The Court: Read the question I asked and the answer of this witness.

(Record read.)

(Testimony of Harold E. Buckler.)

The Court: You can clarify it on cross-examination.

Mr. Lyon: Yes, sir. I want to be certain.

Q. (By Mr. Sellers): Is it or is it not a fact that in offering for sale the type of plant identified as a centrally positioned, independently movable cement hopper batching equipment, that you have a sales advantage in selling against competition?

A. Definitely.

Q. Have you any established competitors who have copied that design?

Mr. Lyon: I will object to that question, your Honor.

The Court: Sustained. [207]

Q. (By Mr. Sellers): Do you have any competitors who make and sell that design?

Mr. Lyon: I will object to that question.

The Court: I sustain the objection on the ground that you used the word "copy."

Mr. Lyon: Yes, sir.

The Court: Maybe these are the people who are copying. I don't know. I will overrule the objection to the latter question because it doesn't embody the word "copy."

Mr. Sellers: That's right. I omitted "copy" in the second question.

The Court: Yes.

Mr. Sellers: Please read the question.

(Question read.)

The Witness: The larger ones have not. Some of the smaller ones have.

(Testimony of Harold E. Buckler.)

The Court: Just a minute now. The question is, do you have any competitors who use that design? That can be answered yes or no. If you answer yes, then I want you to locate where the competitors are, if you can. Do you have any competitors who have used this design?

The Witness: Yes.

The Court: Where are they?

Mr. Sellers: Do you want to ask that question, your Honor? [208]

The Court: Yes, I will ask it. Where are they?

The Witness: In Los Angeles.

The Court: Who are they?

The Witness: The names of the companies?

The Court: Yes.

The Witness: Likens Manufacturing Company, California Batching Equipment Company. There is one other company I can't recall right now.

Q. (By Mr. Sellers): Do you have any major competitors who——

The Court: Just a minute. I don't want to leave this question. You have only named two companies, is that right?

The Witness: Thompson Tank & Steel Company.

The Court: Three companies?

The Witness: Three companies.

The Court: You say that you only have knowledge of these three companies?

Mr. Sellers: May I refresh the witness' memory?

(Testimony of Harold E. Buckler.)

Q. There was a LaValley Ready-Mix, was there not?

A. LaValley Ready-Mix purchased a plant which had been fabricated by Thompson Tank & Steel Company.

The Court: Well, now, your testimony is that you do not know of anybody that uses this particular design except these three or four, whatever it is?

The Witness: Well, Conveyor Equipment Company. [209]

The Court: They are all in Los Angeles?

The Witness: They are all in Los Angeles.

The Court: All right. You don't know anybody in San Francisco that uses such equipment?

The Witness: Not to my knowledge.

The Court: Not to your knowledge?

The Witness: No.

The Court: All right.

Q. (By Mr. Sellers): Are any of these people copying, or people using this design—cancel copying—using this design, can they be viewed as major competitors? A. No, I wouldn't say so.

Mr. Lyon: Your Honor, may I have a clarification of what they mean by major competitors? I think the question is indefinite. It is strictly a matter of this man's opinion, and I don't know what his opinion is of what a major competitor might be.

The Court: What do you mean by a major competitor?

(Testimony of Harold E. Buckler.)

The Witness: I would consider a company a major competitor who has distribution over the entire country.

The Court: These companies you name are just local companies?

The Witness: Are more localized.

Q. (By Mr. Sellers): Can you state of your own knowledge——

The Court: Just a minute. [210]

Mr. Sellers: Yes.

The Court: Didn't I hear something the other day in a statement to the effect that there is a patent suit pending in Chicago relative to this?

The Witness: Your Honor, I don't get into that part of it too much.

The Court: You don't know of anybody in Chicago that is using this?

The Witness: I have no knowledge myself.

The Court: All right. That's all I want.

The Witness: Of anybody in Chicago that is using this construction.

The Court: That's all I want you to tell me, what you know. I don't want you to tell me what somebody else knows, but just what you know.

The Witness: Okay.

Q. (By Mr. Sellers): Can you state of your own knowledge, Mr. Buckler, that potential purchasers of batching equipment prefer the Johnson concentric type batcher plant construction to other types?

(Testimony of Harold E. Buckler.)

Mr. Lyon: I will object to that, your Honor. That is merely speculation and this man's opinion. He is supposed to be testfying to the facts.

The Court: He is the sales manager. The court doesn't have to follow his opinion. Overruled. [211]

Q. (By Mr. Sellers): Please answer.

A. Could I have the question repeated?

The Court: Read the question.

(Question read.)

The Witness: Yes, I can.

The Court: Let me interrupt just a minute. Does that apply to Los Angeles?

The Witness: That applies to Los Angeles.

The Court: How long have you been in the Los Angeles field?

The Witness: Actively in the Los Angeles field since about 1951.

The Court: How many have you sold here in the Los Angeles field?

The Witness: In Los Angeles and surrounding area and radius—I have figures on the State of California, if I may put it that way. About 34-35 plants in the State of California.

The Court: How many plants are there in the State of California?

The Witness: In the State of California, there would probably be, I would guess maybe 250-300 plants.

Mr. Sellers: But shouldn't you ask him, your Honor, how many have been sold during the time he sold his plants?

(Testimony of Harold E. Buckler.)

The Court: Do you know how many plants there are in Los Angeles? [212]

The Witness: I only know based on the testimony of Mr. Wright, and I believe he said 75 or 78 in the city.

The Court: Do you remember how many were Johnson plants?

The Witness: No. I believe he said 25 per cent of the Johnson type construction, if I remember correctly.

The Court: Then based upon that sort of information, is it still your information that the purchasers prefer the Johnson type plant?

Mr. Sellers: May I interrupt to say, your Honor——

The Court: Yes.

Mr. Sellers: ——the number of plants that are in operation here and the number of plants that have been sold since Johnson has been having an active selling campaign in this area are two different things.

The Court: I know, but the question wasn't limited to that in the first place, and his opinion wasn't limited to that.

Mr. Sellers: I think so, your Honor. I said in selling the plants, does he find he has an advantage in selling his type of plant.

The Court: All over the United States? He didn't limit it to Los Angeles County.

Mr. Sellers: But he has testified he sells in the eleven western states, your Honor.

(Testimony of Harold E. Buckler.)

The Court: I know, but you had this patent since 1937. [213]

Mr. Sellers: But he hasn't been selling that long. He doesn't know anything about that. I think I can clarify this, your Honor.

The Court: All right.

Mr. Sellers: I will try to.

Q. Is it not a fact, Mr. Buckler, that these concrete plants once built are usable over an extended period of time? A. Yes.

Q. Running into many years?

A. I would say it is not uncommon for batching plants to be in operation for 15 or 20 years.

Q. Is it or is it not a fact that prior to 1951 or 1952, the C. S. Johnson Company was not active in its sale of plants in this area?

A. That is true. We actually set up out here and formed plans to fabricate at Stockton, California, in 1949, but by the fall of 1950, into the first part of 1951, we were actually organized to a point where we could fabricate the entire unit with the exception of the weigh batcher. When I say the entire unit, I have reference to the overhead storage bins, cement elevators, screw conveyors, all equipment aside from the weighing equipment.

Q. And prior to that time, prior to 1951 or 1952, there weren't very many Johnson plants sold in this area, is that correct? [214]

A. That is right.

Q. And since the time that you have been actively engaged in selling in this area, do you have

(Testimony of Harold E. Buckler.)

any opinion as to the percentage of new plants sold which have been Johnson type plants?

Mr. Lyon: Your Honor, I will object to that. It calls for this man's opinion. He is supposed to be a fact witness.

The Court: Overruled.

The Witness: I could only state in that regard that with reference to the entire eleven western states, which is my territory, that I would say we have had approximately 60 per cent of the business in the entire eleven states and two provinces of Canada.

Q. (By Mr. Sellers): In other words, since you have been actively engaged in the selling of Johnson plants in your area, 60 per cent of all plants sold have been Johnson plants?

A. I would say that in this area.

Q. And can you give the court any opinion of what percentage of those plants were of the plants which we have identified here in this action as concentric weigh batching plants, in which the cement hopper is positioned between the aggregate hoppers independently weighable?

A. I would estimate of that volume of sales possibly 75 per cent of that volume could be attributed to the Johnson concentric [215] discharge type.

Q. The type which you have heard discussed here in this action?

A. As set out in this action.

Q. Have you stated about how many of those plants of the type here of interest have been sold in California?

(Testimony of Harold E. Buckler.)

A. Since 1951 through 1955, about 34 or 35 plants in the State of California of the Johnson concentric type discharge.

Q. Roughly, what is the range of selling price of your plants?

A. They will range from 15,000 to 75,000.

Mr. Sellers: Your Honor, it is 12:00 o'clock. I wonder if we might recess.

The Court: All right. We can take our noon recess. We will stand in recess until 2:00 o'clock this afternoon.

(Thereupon, a recess was taken to 2:00 o'clock p.m.) [216]

Wednesday, March 14, 1956—2:00 P.M.

The Court: You may proceed.

HAROLD E. BUCKLER

the witness on the stand at the time of the recess, having been previously duly sworn, was examined and testified further as follows:

Direct Examination
(Continued)

By Mr. Sellers:

Q. Mr. Buckler, just before lunch I believe you mentioned that in your opinion your company, the Johnson Company, had sold about 60 per cent of the batching plants in the field in which the plant we are here interested in is competitive since you have been on the job. I believe at lunch you men-

(Testimony of Harold E. Buckler.)

tioned you wanted to revise that a bit. Would you like to do that?

A. Yes, sir. That percentage figure is based on actual quotations which we have in our file transmitted to the distributor and our records which indicate those quotations which resulted into orders.

Q. That is the basis upon which you base that figure? A. That is correct.

Q. But did you mean in giving that 60 per cent to include the relatively small plants carried on wheels? [217]

A. No, I did not have that reference to so-called portable plants.

Q. Thank you. Now, will you please name the types of plants which are made and sold by competitors of Johnson, which plants have independent weighing and which are of a type other than the central cement hopper type here in issue.

A. Those plants where the cement hopper and scale would be suspended to the side of the aggregate weigh hopper, and those where the cement hopper and scale would be suspended to the end of the aggregate weigh hopper.

Q. That represents the competition you have today from your major competitors?

A. Yes, sir.

Mr. Sellers: Your witness, Mr. Lyon.

Cross-Examination

By Mr. Lyon:

Q. Mr. Buckler, do you sell batching equipment separately from the other equipment you sell?

(Testimony of Harold E. Buckler.)

A. Not generally, except in those cases for replacement purposes.

Q. Do you list them separately in your catalog?

A. It is priced separately in our catalog.

Q. And it is available for anybody who wants to purchase the batching equipment? [218]

A. Well, yes, I would say it would be.

Q. In one of these plants what are the major components of the plant itself, taking them one at a time, and I want to ask you a question with regard to each one?

A. The weigh batcher would be a component, I think, of a batching plant.

Q. What is another component of the plant?

A. The overhead storage bin.

Q. With respect to the overhead storage bin, is there one standard type or are there many types that you could have?

A. They are more or less standard, except they do vary in capacity.

Q. Now, are they standard in all types of plant irrespective of whether or not you use this particular batching apparatus?

A. Would you repeat the question?

Mr. Lyon: Would you read it?

(Question read.)

The Witness: No, the same type of overhead storage bin would not be used where we don't employ the batching apparatus.

(Testimony of Harold E. Buckler.)

Q. (By Mr. Lyon): But all plants, irrespective of whether or not they have this batching apparatus, have an overhead storage bin of some form?

A. Not all plants that have batching apparatus which differs from the one in suit would have an overhead storage [219] bin.

Q. Most plants do, though?

A. Most plants do.

Q. Most plants also include structural steel to support the batching apparatus?

A. That is correct.

Q. And they use elevators or some form of means to get the aggregate up to the storage bin, irrespective of whether this particular batching apparatus is used or not?

A. Yes. Some means of elevating the material to the overhead bin would have to be employed.

Q. Does your catalog list separately the prices for such elevating apparatus?

A. Yes, sir.

Q. Do you sell such apparatus separately?

A. Yes, sir. Mostly for replacement.

Q. Do you sell the structural steel separately?

A. In what form?

Q. Any form.

A. Structural steel as such, we do not sell separately.

Q. When you are putting up a batching plant, where does the structural steel come from?

A. It is bought from mill and warehouse suppliers.

(Testimony of Harold E. Buckler.)

Q. Do all plants in which this batching apparatus is used have the same structural formation, insofar as the steel [220] is concerned, or does that vary?

A. Would you repeat the question?

Mr. Lyon: Would you read it?

(Question read.)

The Witness: I don't quite understand the question. Structural formation?

Q. (By Mr. Lyon): Well, when you are using this batching apparatus, do you have one particular set of plans you put up around it, structurally speaking?

A. No. Those plants vary in size. They are structurally supported, but they vary in size.

Q. Are you familiar with the large type of Johnson batching apparatus?

A. Yes, I am.

Q. How is that formed, generally speaking?

A. I don't understand your question.

Q. Well, are they hoppers disposed concentrically in a circle, one inside of the other, one on top of the other, or how are they related?

A. Generally speaking, they are arranged concentrically.

Q. In other words, you would have a group of hoppers around a circle? A. That is true.

Q. All of them feeding independently into a large gathering hopper of some form? [221]

A. That is true.

(Testimony of Harold E. Buckler.)

Q. Will that batching apparatus produce concrete of the same quality as the concrete produced by this particular apparatus?

A. I would say generally speaking, yes.

Mr. Lyon: Your witness, sir.

Redirect Examination

By Mr. Sellers:

Q. In your sale of equipment and plants, what would you say concerning whether you sell usually the entire plant or merely a part of the plant?

A. The entire plant.

Q. When you go out to the job to sell to a purchaser, it is the entire plant you try to sell him that he wants? A. That is correct.

Q. And where you are replacing a hopper or a scale, or something of that sort, that is usually, you said, I believe, a replacement?

A. That's right.

Mr. Sellers: My co-counsel suggests I have asked what he tries to sell, but it would be well to ask what the customer usually wants. I will ask that.

Q. What does the customer usually want, the entire plant or merely a part of the plant? [222]

A. The entire plant so that all the component parts that go to make up the plant will fit in it.

Q. And the sale usually comprises the entire plant? A. That is it.

Mr. Sellers: That's all.

The Court: You may step down.

(Witness excused.)

Mr. Sellers: Mr. Tilden, I would like to call as a witness, please.

CARL W. TILDEN

called as a witness by and on behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name, please?

The Witness: Carl W. Tilden, T-i-l-d-e-n.

Direct Examination

By Mr. Sellers:

Q. What is your occupation, Mr. Tilden, please?

A. I am in the sales management business.

Q. With what company?

A. Challenge Manufacturing Company here in Los Angeles.

Q. What is your title, please?

A. General Manager, Distributor Sales. [223]

Q. And what does the Challenge Manufacturing Company make? A. Truck mixers.

Q. The type of truck which goes to a batching plant and receives a concrete mixture from the batching plant and transports it to the job, the location? A. Yes.

Q. How long have you been in this line of work, Mr. Tilden? A. Six years.

Q. How long have you been general manager?

A. Four years.

Q. Have you had experience which enables you to speak from that experience as to the results, or the type of operation in certain types of plants,

(Testimony of Carl W. Tilden.)

let us say, in terms of how your mixer trucks operate when they receive mix from different types of plants?

A. Yes.

The Court: Is there any dispute? Won't the defendant stipulate that after the batch is made, it is put in one of these trucks with a revolving drum and it goes out direct to the job? There is no dispute as to that, is there?

Mr. Sellers: None whatever, your Honor, but there is a dispute as to whether or not the mix which comes from a Johnson type plant is not superior in terms of the operation of that [224] of truck to mix which comes from other plants.

The Court: We have got a sales manager of trucks. How is he going to testify to the quality of the mix?

Mr. Sellers: Let me explain. The mix comes from the batching equipment and it goes into the truck, and it is the truck that delivers the product to the job. It has been our contention, your Honor will recall, that when the mix was mixed in accordance with our patent, the Johnson plant system, and goes into the truck, that several things result. One, the truck can do the job in less time and therefore, to have the—

The Court: How are you going to get around this provision, according to your first witness, where he requires the mix to be made, the truck making the mix to make the mix for a certain length of time? He said he had a minimum amount and a maximum amount of time.

(Testimony of Carl W. Tilden.)

Mr. Sellers: If your Honor will remember, our first witness was a specialist, the inspector for the City of Los Angeles; and his requirements for time expenditure are only limited to his own jurisdiction. There may be many other parts of the country where there is no such time limitation.

The Court: That's all the evidence we have.

Mr. Sellers: Yes, but I am bringing in additional evidence right now, your Honor.

The Court: All right. You go ahead. You have got to qualify him as an expert. [225]

Mr. Sellers: Well, I am going to qualify him as a man who has sold these concrete mixing trucks, your Honor, and, therefore, he knows as to their operation with mix received from different types of plants.

The Court: If he knows how they operate. Go ahead and see if you can qualify him.

Mr. Sellers: All right.

Q. In your job as sales manager, it is your duty to sell mixing trucks, is it?

A. That is correct.

Q. How long have you been selling mixing trucks? A. Six years.

Q. Are you familiar with the method by which the mixing trucks charge at a cement batching plant? A. Yes.

Q. Are you familiar with the operation of the mixing truck between the plant and the job?

A. Yes, sir.

Q. And of your own personal knowledge you are familiar with the differences in the operation of the

(Testimony of Carl W. Tilden.)

mixing truck when it receives aggregate and cement from one type of plant and when it receives aggregate and cement from another type of plant? A. Yes, sir.

Q. Has it been your experience in the sale—let me ask [226] you this. Is it also within the function of your company to work with these mixing trucks after they have once been sold?

A. Yes. We perform field service work.

Q. And as a result of that field service work, do you come in contact with the problems which the mixing truck people have in the field?

A. Yes, sir.

Q. Has it been your experience that there is any difference in the operation of the mixing truck when the truck receives a mix from a plant in which the cement is projected centrally down through a shaft of the aggregate, as in the Johnson type plant—let us assume that is the operation of a Johnson type plant—and the mix where it comes from a plant not of the Johnson type?

Mr. Lyon: I will object to that.

The Court: Sustained. This witness hasn't been qualified. This witness can testify to how the truck acts and what the operation of the truck is. You haven't even had this witness testify he knows what a Johnson type plant is.

Q. (By Mr. Sellers): Let me ask you this, Mr. Tilden. In your operations in the field, have you come into contact with plants of different types?

A. Yes, sir.

(Testimony of Carl W. Tilden.)

Q. And of your own knowledge have the plants of different types contained different types of—cancel the question. [227]

In your observations have you discerned any difference in the operation of your trucks when they receive mix from a plant of one type and when they receive mix from another type of plant?

A. Yes, sir.

Q. Will you please explain that to the court more fully?

A. We come in contact through our endeavor to sell our product——

The Court: Let me ask the witness a question.

The Witness: Yes.

The Court: There are many kinds and classes of concrete, aren't there, grades?

The Witness: Oh, yes, sir.

The Court: Your trucks are manufactured to handle all kinds and classes, aren't they?

The Witness: That's right, sir.

The Court: And I suppose they act differently with one kind than another kind.

The Witness: Yes.

The Court: Are you familiar with this Johnson type batching plant?

The Witness: Yes, sir.

The Court: Do you know what kind of a mix you get out of it? [228]

The Witness: Yes, sir.

The Court: Are you familiar with the other kinds of plants?

(Testimony of Carl W. Tilden.)

The Witness: Yes, sir.

The Court: What other kinds of plants?

The Witness: Well, I classify plants, not by trade name, but more the type, rather than attaching a name to them.

The Court: What is the classification?

The Witness: We come across three basic types of batching plants, premix or central mix, where the concrete is mixed in a mixer located up in the plant, the water and all the aggregate and cement, and then dumped into a mixer truck and hauled to the job, where the job of the mixer truck is just purely to keep it stirred up, to keep it from segregating.

The other type of plant basically is a two stop dry batch. By dry batch, that is my phraseology for saying it is mixed in a truck, rather than being premixed at the plant site itself in a mixer in the plant. The two stop arrangement is where the truck will go under and pick up a portion of materials for the concrete batch at one stop, and then move to another position and receive some more.

Then there is a single stop batch plant, where all the materials are charged into the mixer at the one position. The truck doesn't move from one to the other. It just stays [229] in a stationary position and all the materials are charged in the truck at that one position.

Now, of the single stop type plants, there are types that have side feed cement, where the cement comes from the side over to the gathering hopper, and then from there into the mixing drum.

(Testimony of Carl W. Tilden.)

Then we have the type where you have cement in the weigh hopper, but at the side, and then you have a central flow type, that Johnson makes.

The Court: Now, tell me, is there any mechanical, real mechanical difference between the revolving drum trucks that carry the concrete? Is there any difference between the truck, whose only purpose is to keep it stirred up, and keep it from setting, and the truck that mixes the cement as it goes along, or the concrete as it goes along?

The Witness: There used to be. In the infancy of the ready-mixed concrete business, there used to be and still is today some units classified as agitators only, where the manufacturer might leave off certain things he wouldn't put on a truck that was going to do a mixing job.

But in the broad sense of the term, truck mixers today, by and large, are set up to do the job of mixing and agitating for the secondary use. In other words, it is the same unit today.

The Court: Isn't it true at the present time the mixing [230] of concrete, that is, the greatest part of the mixing of the concrete is done in the truck?

The Witness: Yes.

The Court: And not at the plant?

The Witness: Yes.

The Court: Is that what you call a dry batch?

The Witness: Yes, a dry batch.

The Court: That is what you call a dry batch?

The Witness: Yes.

(Testimony of Carl W. Tilden.)

The Court: Although when it is delivered into the truck, it has water in it?

The Witness: Yes. This is a term, a trade type of term I am using. Some people call it transit mix.

The Court: Now, restricting your testimony to just the dry batch, that is the plants that deliver to the truck the ingredients, and the mixing is done by the truck on the way to the job——

The Witness: Yes.

The Court: ——can you differentiate between any batching plants? Do you know the difference?

The Witness: Yes. You have the two-stop method on that. I have even seen some plants where they have four stops.

The Court: Restrict it to the one stop.

The Witness: Yes, sir.

The Court: When the revolving drum or the truck with the [231] revolving drum backs under the spout——

The Witness: Yes.

The Court: And the ingredients are placed in the revolving drum, and then it is mixed on the way to the job, do you have any differences between the plants, that is, the operation of the plants?

Mr. Sellers: I believe he has answered that, your Honor. He said the central flow and the flow of cement from the side.

The Court: Let him answer.

Mr. Sellers: He did answer, your Honor. He has answered that.

The Court: All right.

(Testimony of Carl W. Tilden.)

The Witness: I probably did not answer your question. I attempted to.

The Court: You mean this cement goes into the mixing batch from the side or the mixing hopper from the side?

The Witness: It would depend on the plant there again, but it would be introduced to come in contact with the aggregates and materials from one side of your plant, rather than in the center.

The Court: Those are the only two kinds of plants you know of, the one where the cement comes down through the center, and the one from the side?

The Witness: From one side or the other. It doesn't make [232] any difference.

Q. (By Mr. Sellers): Would you include the end in that, as well as the sides?

A. The side all the way around.

Q. The exterior.

A. Because it just depends on how the fellow happened to set the plant, on which side it is going to be on. You can't put your finger on it.

The Court: All right.

Q. (By Mr. Sellers): Now, you have observed those different types of plants in your operations, and have you observed in your operations any difference in the operation of your trucks when they mix from a plant in which the cement is fed down centrally from a central hopper, as distinguished from a plant in which it is fed down from the outside of the aggregate hopper? You have mentioned two types. Now, I would like to have you tell me

(Testimony of Carl W. Tilden.)

whether or not in the operation of your trucks any difference results, to your knowledge, and over your field of experience, when they receive one type of mix and when they receive another type.

A. Yes, there is a difference.

Q. Now, will you please explain that to the Court?

A. The difference will show up now—first of all, there are easy jobs and there are tough jobs. You mentioned at the outset here that there are all different types of [233] concrete mixtures.

On the type of job where it is the most difficult to achieve a good mix in the mixer drum, the truck drum, where a homogeneous mix seems to be the more difficult to get under those particular specifications, we have noted that a Johnson type batch plant will give us a faster mix over those other types where the cement is introduced at the outside or at the end or the sides, or wherever you want to call it.

The Court: You are limiting your observations to the faster mix, not a better mix. In other words, you don't know the quality of cement or, rather, concrete delivered on the job. You have never tested that. All your are saying is that in the transportation from the plant to the job, you get a faster mix.

Is that what you are trying to say?

The Witness: What I should say is a better mix faster, possibly.

The Court: How do you know it is a better mix?

(Testimony of Carl W. Tilden.)

The Witness: Because in these jobs, you see, in jobs where you would run into this type of thing is where it would be a specification type of job, particularly where the water content would be low and the cement content would be low, generally you are running tests on those types of jobs from every load.

The Court: You are running tests? [234]

The Witness: No.

The Court: You are the manufacturer and the operator of the truck. Do you run any tests?

The Witness: The inspection agency for the purchaser of the concrete is running these tests.

The Court: Yes.

The Witness: And we might be called in at this point if for some reason the thing wasn't coming up to requirements, the tests were showing that it was not coming up to requirements, and we would go in and in certain cases we would recommend that they spend a little more time mixing to get a better mix.

In those cases where we have gone in, we have noted that the central flow type batch plant does get a better mix faster than the side type. That is our experience.

Mr. Lyon: Your Honor, is the witness testifying from his own recollection or from what somebody has told him?

The Court: I don't know. You can take the witness on voir dire.

The Witness: You mean I should say what I instead of we? I.

(Testimony of Carl W. Tilden.)

Q. (By Mr. Sellers): Are you speaking from your own personal experience in your answer to the judge's questions? A. Yes, sir.

Q. Now, the matter of time required in your trucks to [235] obtain satisfactory mix, did I understand you to say that you could obtain a satisfactory mix quicker with a mix from a Johnson type plant than from another type plant?

A. Yes, sir.

Q. Is that particular time element important on some jobs? A. Yes, it is.

Q. Would you explain that, please?

A. On some jobs the ready-mixed concrete producers might have a short hauling distance and, of course, he is quite interested at this point to be able to get the concrete in and out of his truck as fast as he possibly can, and on that type job you will notice the difference comes in.

If it is a long type haul where the fellow has more than enough time, you wouldn't notice it, but on the short hauls it shows up.

Q. Have you in your experience run into situations where, because the mixing time required was greater than it should be, you have found it necessary to put on additional truck equipment in order to give each truck enough mixing time?

A. Yes, that could happen, too.

Q. Would it be your opinion that in certain cases the uses of mix from a Johnson type plant would have enabled you to use a fewer number of

(Testimony of Carl W. Tilden.)

trucks to accomplish the job than was [236] required with the mix which you did have?

Mr. Lyon: Would you read that question, please?

The Court: Read the question.

(Question read.)

Mr. Lyon: Your Honor, I am going to object to that question as going well beyond the scope of this man's knowledge. He has only testified to knowledge of one particular type of mixing truck.

The Court: Sustained. I want to ask the witness a question.

How many Johnson plants are there in Los Angeles and vicinity?

The Witness: I would have to make an estimate.

The Court: Well, now, you are qualified as an expert. You are talking about a Johnson type plant. How many Johnson type plants are there?

The Witness: Judge, I couldn't answer that. I am a truck mixer man and I don't count noses on batch plants.

The Court: How do you know, when you are talking about a certain plant, that it is a Johnson type plant?

The Witness: Only when we come in contact with a field service problem do our field service managers report to me.

The Court: When did you have the last field service problem?

The Witness: Of this nature? [237]

The Court: Yes.

The Witness: As a matter of fact, yesterday.

(Testimony of Carl W. Tilden.)

The Court: When did you have the one before that?

The Witness: Oh, I would say some time last fall. We haven't had too much in the winter months.

The Court: How many do you have during the year?

The Witness: I couldn't put a specific amount per year. It would depend on the jobs.

The Court: The one you had last fall, where was it?

The Witness: The one that we had last fall was in Las Vegas, Nevada. The one that we had yesterday was in Kansas City, Missouri.

The Court: I am talking about Los Angeles. I am not talking about Kansas City or Las Vegas. You are testifying about Los Angeles here. You are not testifying about Las Vegas and Kansas City.

Q. (By Mr. Sellers): Is your experience limited to the Los Angeles area?

A. My experience is the entire United States and Canada.

Mr. Sellers: We are not limited to this area, your Honor. His experience with these trucks covers the entire United States, so why should we limit his references to this area? We are trying to establish that here is a man who has truck mixers and that he has to handle the product which [238] these various plants put out. We are using him to show that in his experience the one type of plant puts out a better product than the other, and who

(Testimony of Carl W. Tilden.)

is in a better position to say that than the man who has to handle the concrete?

The Court: Let me ask a question. You say you are sales manager of Challenge Manufacturing Company?

The Witness: Yes, sir.

The Court: Is that a local concern?

The Witness: Yes, sir.

The Court: How big a concern is it?

The Witness: In what regard?

The Court: Does it only manufacture this sort of trucks and equipment?

The Witness: That is our major endeavor.

The Court: How many of these batching trucks do you make during a year and sell?

The Witness: Now, there is one of the secrets we have in our business that my boss—I will put it this way.

The Court: I wanted to know. Are you a big concern?

The Witness: Between 1,500 and 2,000 per year.

The Court: And you sell them throughout the United States?

The Witness: Throughout the world.

The Court: And on these jobs are you called to different places in the United States? [239]

The Witness: Yes, sir.

The Court: This job over at Las Vegas, was that a Johnson batching plant job?

The Witness: The one in Las Vegas didn't happen to be a Johnson batch plant.

(Testimony of Carl W. Tilden.)

The Court: The one last fall in Kansas City, how about that?

The Witness: The one last fall was the Las Vegas job.

The Court: I thought you said there was one yesterday.

The Witness: Yes. That was Kansas City.

The Court: What was the nature of the plant in Kansas City?

The Witness: In Kansas City, I have not been on the job yet, so I can't answer.

The Court: Before last fall, what was the one previous to that one that you were called upon?

The Witness: There probably were several that I can't recollect right now, but previous to that time one very clear problem was on the Salina Air Base job in Salina, Kansas, where we had a similar nature problem where we were trying to speed the mixing cycle of the trucks.

The Court: Was it a question of the truck mixing the material, or was it a question of the material being pre-mixed in the batching plant?

The Witness: The problem that we were called in on was [240] to help speed up our mixer in the mixing cycle, to get a better mix faster for them, so they could get their trucks to turn around and produce more concrete in a given period of time.

The Court: On these trucks that have the revolving drum, does that drum revolve at different speeds, or is it made only to revolve at a certain speed?

The Witness: Different speeds.

(Testimony of Carl W. Tilden.)

The Court: You can speed it up or slow it down?

The Witness: Yes.

The Court: Can that be done by the truck operator?

The Witness: Yes.

The Court: Then the truck operator decides what speed the drum is to revolve?

The Witness: Yes, sir.

The Court: If it revolves at a faster speed, you get a better mix than at a low speed?

The Witness: Not necessarily.

The Court: You get a better mix at a low speed than a faster speed?

The Witness: It depends on the specification of the mix. As a matter of fact, truck mixers, I will put it this way to try to clarify my knowledge of the truck mixer speeds, the speed will run from roughly, three revolutions per minute on the drum to 15 to 20. Our experience shows that somewhere close to 8 revolutions per minute on our particular design [241] produces the best mix over the broad classifications.

The Court: Well, the speed of the drum is determined entirely, isn't it, by the quality of the mix, by the specifications of the job?

The Witness: Not the speed.

The Court: I mean the revolving of the drum.

The Witness: The amount of turns they can put on the drum sometimes are specified as a minimum and maximum. However, the speed rarely is governed by any specification.

(Testimony of Carl W. Tilden.)

The Court: Who determines the speed? You start on a job. The truck driver is driving the truck and the drum is revolving. He has got 10 or 15 miles to haul it. Who determines the speed?

The Witness: We hope to think that we do by instructing the driver properly. A lot of times they don't follow our instructions, but I would say we determine the speed they should operate on a certain type operation.

The Court: Can you determine the speed without knowing the specification on the job, what is the quantity of cement and sand and gravel and how far the truck is going, and so on?

The Witness: According to our tests, as I mentioned earlier, according to our tests we feel that eight revolutions per minute on our particular design drum will cover the broad classifications of concrete.

The Court: Just a minute. That means concrete from all [242] kinds of batching plants?

The Witness: Yes.

The Court: Johnson and non-Johnson?

The Witness: Yes.

The Court: So you don't have a certain speed that is required on a Johnson plant as against the speed on a non-Johnson plant?

The Witness: No, sir. In other words, we feel that our machine of our particular design will do the best job at that speed of mixing.

The Court: Regardless of what is done in the plant?

(Testimony of Carl W. Tilden.)

The Witness: Regardless of what goes in it and where it comes from.

Q. (By Mr. Sellers): But you don't mean to say by that that the final product will be the same regardless of what came in at the plant, do you?

A. No.

The Court: This witness is not a concrete man.

Mr. Sellers: Your Honor, my question doesn't differ one iota from yours as far as I can see. If you will read your question and mine, it is the next question exactly in line, and I wish the reporter would read it, because my question is directly parallel to yours.

Will you please read it, Mr. Reporter?

The Court: And will you read my question, Mr. Reporter? [243]

(Record read.)

Mr. Sellers: I think I am entitled to an answer to my question.

The Court: All right.

Mr. Sellers: And the answer to my question was no.

Q. Is it not a fact to your knowledge there are between 5,000 and 6,000 batching plants in the country? A. Yes, sir.

Q. Approximately? A. Estimated.

Q. Would it also be your opinion that approximately 75 per cent of those five to six thousand batch plants have been serviced by Challenge trucks of your manufacture? A. Yes, sir.

(Testimony of Carl W. Tilden.)

Mr. Lyon: I object to that, your Honor. This man is still only a salesman and I don't see where he is qualified to give an opinion on what the batching plants are in the United States until it has been shown he has been around the country and seen them or something. He said before it is just an estimate.

The Court: The objection is overruled.

Mr. Sellers: Will you read the last question, please?

(Question read.)

Mr. Sellers: And was there an answer?

(Answer read.) [244]

Q. (By Mr. Sellers): Is your opinion concerning the effectiveness of your trucks in working upon mix obtained from plants of different types based upon the work of your trucks in these various plants throughout the country during the time you have been employed by your company?

A. What is that again?

Mr. Sellers: Will you read the question, please?

(Question read.)

Mr. Sellers: Let me restate that, please.

Q. Is your opinion as to the product which your truck produces, your trucks produce, when dealing with mix obtained from different types of plants based upon your experience in your field in the past six years? A. Yes.

(Testimony of Carl W. Tilden.)

Q. Have you had experience in the operation of your trucks with what is known as balling up in the trucks? A. Yes, sir.

Q. You have? A. Yes, sir.

The Court: What do you mean by "balling up"?

Q. (By Mr. Sellers): What does that mean?

A. Well, balling up to me, and here again it is terminology. I am glad you asked me, because balling up to me is a condition where the mixer starts to discharge the load of concrete and out comes some balls that will run in size from [245] little bitty things to as big as your head, which consists largely of fine aggregates and largely cement.

Q. Does your experience give you any information concerning the frequency with which that balling up occurs when dealing with mix obtained from Johnson type plants and when dealing with mix obtained from other types of plants?

Mr. Lyon: Your Honor, I am going to object to that. There is no testimony so far that this man is——

The Court: Objection sustained.

Mr. Sellers: Well, your Honor——

The Court: Aren't you going far afield now to have him try to give some figures as to the differences between Johnson plants and other plants? He has kept no records. All he can do is rely upon his recollection.

Mr. Sellers: Your Honor, I can't understand that position. I am not asking about the operation of the plant. I am asking what happens in his

(Testimony of Carl W. Tilden.)

truck. We have qualified him, certainly, as an expert.

The Court: I didn't understand the question that way, that it was what happened in his truck.

Mr. Sellers: Yes. All I did was say he obtains material from different plants, and then I asked him whether or not in the operation of his trucks he found material from one type of plant balls up more frequently in his trucks than material from another type of plant. I am not asking him what the plant [246] did. I am asking him what his trucks did with material from different plants.

The Court: I will allow him to answer if he can tell us the name of the plant and where it was and when it took place so it can be subject to cross-examination. He can't just say, "Yes, I have had experience like that."

Mr. Sellers: Your Honor, I am very happy to have him specify, but I think your Honor must agree it is a proper question. He certainly understands the operation of his trucks, and whether balling up occurs is part of that operation.

Mr. Lyon: Your Honor, there is no testimony by this witness he has ever driven a truck or operated a truck, or operated a truck in which balling up occurred.

The Court: Have you ever been in a truck when there was a so-called balling up?

The Witness: I have been standing right next to one, yes, sir.

No. [redacted] 1664

Office Supreme Court, U.S.
FILED
JUN - 5 1957
JOHN T. FEY, Clerk

No. 15249

United States
Court of Appeals
for the Ninth Circuit

C. S. JOHNSON COMPANY, a Corporation,

Appellant,

vs.

MERLE W. STROMBERG, Doing Business as California Batching Equipment Co.,

Appellee.

Transcript of Record
In Two Volumes

Volume II
(Pages 311 to 654)

Appeal from the United States District Court for the Southern District of California, Central Division.

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DEC - 3 1956
PAUL P. O'BRIEN, CLERK

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(Testimony of Carl W. Tilden.)

The Court: Do you know what causes the balling up in the mixer?

Mr. Sellers: No one asked him that, your Honor.

The Court: You don't do you?

The Witness: No, sir. I don't know what causes it.

Mr. Sellers: But, your Honor, is that essential? If you would obtain raw material from two different sources and [247] then pass it through the same—

The Court: Now, just a minute.

Mr. Sellers: Yes.

The Court: How many times have you been by the truck when you observed the balling up of this material?

The Witness: I have been by a truck, I believe, twice.

The Court: When was that?

The Witness: Last summer.

The Court: Where was it?

The Witness: Excuse me. The previous summer.

The Court: The summer before last?

The Witness: 1954, right.

The Court: Where was it?

The Witness: That was right here in Los Angeles County out on a flood control project.

The Court: What kind of batching plant was it?

The Witness: The batching plant was a cement with side entry on his plant. I don't know who made the plant.

The Court: All right. Now, where was the other experience?

(Testimony of Carl W. Tilden.)

The Witness: The other experience was at the same time of the year out in the San Fernando Valley on a similar project.

The Court: What kind of a plant was it?

The Witness: It was a home-made batch plant with cement [218] screw side entry.

The Court: Are those the only two experiences you can remember?

The Witness: That I was standing beside the truck, yes.

The Court: That is, that you observed personally?

The Witness: Those are the only two, but I hear——

The Court: Then how can he compare——

Mr. Sellers: Your Honor, must the man be standing beside a truck in order to have knowledge of this sort of thing? I respectfully contend the man can be an expert in the field without having stood beside the truck at the time it occurred. You may be right. Maybe he doesn't have that information, but I think we are entitled to find out, and I know your Honor will permit me to ask what other basis he has.

The Court: Go ahead, if you can qualify him. I am willing for you to qualify him.

Mr. Sellers: Thank you, your Honor.

Q. Do you have any other basis, Mr. Tilden, for the formation of an opinion relative to the action of balling up in trucks and the relevancy of the type of mix received in that connection?

(Testimony of Carl W. Tilden.)

A. Yes, I believe I have.

Q. Well, will you please explain that to the court so that we can judge whether or not you are qualified to voice an opinion on the matter? [249]

A. I have 54 distributors throughout the country. These 54 distributors have an awfully nasty habit of contacting me direct when things go wrong. Cement balling is what they consider something as gone wrong. It is not normal.

Also, I have three field service men who work directly for me, whom I dispatch to these various jobs to see if we can't help in some way to correct their problem.

Q. What information have you gained through those sources which gave you information on this point?

Mr. Lyon: Your Honor, I will object to this as based upon hearsay. He is just repeating now what somebody else has told him.

The Court: Can you qualify an expert witness on hearsay?

Mr. Sellers: I am not qualifying him as an expert, your Honor. This gentleman is the sales manager——

The Court: Yes, you are. You are trying to get him to testify that balling up occurs less frequently from a Johnson type installation than the other.

Mr. Sellers: I am not asking for his opinion, your Honor. If he were an expert, I would ask for his opinion on a particular point. I am asking him what his experience has been.

(Testimony of Carl W. Tilden.)

The Court: He has had two experiences.

Mr. Sellers: Oh, no, no, your Honor. I can't agree to that.

The Court: Can you qualify a man on hearsay, anything [250] that he has got from his——

Mr. Sellers: These are figures and facts that are his business experience in his every-day business, your Honor. Do you mean to say the president of a company who is running the entire company, and he knows what that company does, he is not down on the job digging the coal, does not know the over-all picture of the company?

Now, this man, these reports come in to him day by day. He knows what the problems are and he corrects the difficulties. He handles the problems. It seems to me we are entitled to his information, at least, if not his personal information, at least what the experience of his company is.

Now, let's not put it in terms of an expert, but what is the experience of his company in this field. Certainly he can tell that. If he can't, who can? The man down on the job can't tell. Here is the man who is the sales manager of his company. He receives these reports from the field that they have balling up problems, and he investigates the troubles and it develops that the Johnson type plant gives less trouble.

The Court: If he has the reports, aren't the reports the best evidence?

Mr. Sellers: There has been no objection on that point, your Honor.

(Testimony of Carl W. Tilden.)

Mr. Lyon: There will be.

Mr. Sellers: Well, there hasn't been, your Honor. There [251] has been no objection on best evidence, no objection at all. I think that I am entitled to show that this man in his daily experiences, telephone calls, possibly, so he knows what happens in his company. To say we must reduce it to personal terms——

The Court: But there hasn't been any testimony yet that these complaints are based on the question of whether or not it is a type of plant where the concrete is put into the mixing hopper in the center or comes from the side.

Mr. Sellers: I haven't been able to do that yet.

The Court: All he says so far is that he has had these reports.

Mr. Sellers: Yes, he has.

The Court: Let's find out. Let's see if we can't lay some foundation to get the testimony admitted.

Mr. Sellers: I would like to, your Honor, but this gentleman is the sales manager of the company. His experience is based on the experience as sales manager. In comes a report from the field that they have balling up.

The Court: Let him tell about these reports.

Mr. Sellers: I am trying to do that.

The Court: Where did they come from and what kind of equipment was involved?

Mr. Sellers: I did ask that, your Honor. You remember I asked if his experience was based on anything besides the two standing beside the truck.

(Testimony of Carl W. Tilden.)

episodes, and he said yes, that [252] he had these 53 or 54 distributors and three specialists, and all those come in to him. Now, I will follow your Honor's suggestion.

Q. Would you please detail some of these experiences which you have had?

The Court: No. Wait a minute. Not the experiences he has had, because he has testified to what he has had.

Mr. Sellers: I beg your pardon.

The Court: The experience has been called to your attention now.

The Witness: The experiences that have been called to my attention are by and large based on when we first entered this business, and we have been in the field about seven or eight years building these truck mixers. On our first entry into the business, our distributors were quite unfamiliar with the problem of selling and servicing and making these things operate. The people that bought our product were unfamiliar with it, and during that period we had a great many calls to say, "Come on out here and show me how to make this thing operate."

The Court: Just a minute.

The Witness: That happened quite a while ago, Judge.

The Court: Just a minute. When you say "make this thing operate," what are you talking about? Is it your truck or the batching plant? [253]

(Testimony of Carl W. Tilden.)

The Witness: He is calling us because he wants us to make our truck operate.

The Court: The truck operate, all right.

The Witness: Yes, the truck, not the plant, because we don't have anything to do with it. My experience gained and my knowledge, my down-to-earth knowledge on this was gained through this, I would call it difficult period for us, during our entry into this business.

As we learned, so did the people that operated our machines and so did the people that sold them and so did the people that serviced them.

In the last two years or so, a lot of problems might arise in the field where our distributors would automatically take care of them so that we as the manufacturer would not learn of them and, therefore, our experience in the last year to a year and a half has not been as broad and as varied as it was prior to that time, and for me to be quite specific, your Honor, on a date and a time and when a certain thing happened, and under what conditions it happened, I couldn't produce any evidence right with me today. I didn't bring it.

The Court: Let me ask you this. You say that this was when you first started out about six or seven years ago, is that correct?

The Witness: Actually, we produced our first mixer eight years ago. [254]

The Court: All right. I presume this is a local organization?

The Witness: Yes, sir.

(Testimony of Carl W. Tilden.)

The Court: And I presume you started selling locally?

The Witness: Yes, sir.

The Court: These calls came in, I presume, locally?

The Witness: Yes, sir.

The Court: That is, in the first year or so, you didn't have nationwide distribution?

The Witness: That's right.

The Court: You had local distribution?

The Witness: Yes.

The Court: All right. Now, during this period, how many Johnson batch plants were there in Los Angeles County or in Southern California?

The Witness: I have no idea.

The Court: Do you know whether or not you were called out on a complaint, and you diagnosed the problem because the cement was not being placed in the center rather than from the side?

The Witness: I believe my point is that all my experience is that we can sometimes mix it faster out of one plant than we can out of another. That is our experience as far as truck mixer operation.

The Court: Why do you say you can mix it faster? Is it [255] because of the quality of the materials, the question of the amount of water in the materials, or is it a question of the way it is mixed?

The Witness: It is my theory, because of the fact that there is a very definite difference between mixing from—batching out of one type plant and

(Testimony of Carl W. Tilden.)

another, that it must be in the batching of the batch plant that helps the truck mixer to do its job.

The Court: That is just a theory, isn't it?

The Witness: No. It is proven. I mean one plant to us will allow the truck mixer to mix faster than another type, because possibly the materials are intermingled before they enter the drum.

The Court: Suppose I took one of your mixing trucks and manually put in the materials. I put in the rock and the sand, and on top of that I put in cement and put in the proper amount of water.

The Witness: Yes.

The Court: Wouldn't your revolving drum truck adequately mix that?

The Witness: It would mix it, but it would mix it much faster if you put in a shovelful of sand, a shovelful of aggregate, and a shovelful of cement, and a little water in between, because you are sandwiching all that material in there, and it would mix it much faster that way than [256] individually.

The Court: Forgetting the period of time, it would mix it adequately, wouldn't it?

The Witness: It would mix it if you took long enough, yes, sir.

The Court: So the only question here is time?

The Witness: Yes.

Mr. Sellers: That is one point, your Honor.

Mr. Lyon: May I move to strike the last two answers of this gentleman? There is no proof in this record whatsoever that he has ever run a mix-

(Testimony of Carl W. Tilden.)

ing plant, a batching plant, or ever been present at a time when this was put in one of these machines.

The Court: Well, I think it is up to the court to weigh the evidence. A witness' expert testimony is no more valuable than the foundation that he lays.

Mr. Sellers: Well, if I may say so, your Honor, I am not attempting to qualify this gentleman as an expert in the field of batching equipment, but instead he has practical and fact experience in the field of trucks and in the selling of trucks and the problems that a manufacturer of trucks runs into, and I don't want to qualify him as an expert. I am asking him questions concerning what experience he has had in the matter of time taken, in treating a mix from one type of plant and another, and in the question of balling up. I think [257] that he can give his experiences and what conclusions he draws from those experiences, not as an expert but——

The Court: I have overruled the objection and you have got your statement in the record. Now, suppose you proceed.

Mr. Sellers: Thank you, your Honor. Now I have lost my place.

The Court: Well, maybe we ought to take the afternoon recess. It's nearly 3:00 o'clock.

Mr. Sellers: Thank you, your Honor. I would like that.

The Court: Recess until five minutes after 3:00.

(Recess.)

(Testimony of Carl W. Tilden.)

The Court: You may proceed.

Q. (By Mr. Sellers): Did I understand you properly to say, Mr. Tilden, that your experience upon which you base your statements of what has happened, those experiences were acquired largely prior to the last several years?

A. Yes, sir.

Q. And by virtue of the growth of your business and the greater efficiency of your field people, most of these problems no longer come into your central main office, but instead are handled out in the field?

A. Yes, sir.

Q. Does that explain in part why you are not able at this time to pinpoint these particular difficulties in terms of the plant where this problem arose and that problem arose? [258]

A. Yes, sir.

Q. But from your general experience dating back to the time when these problems did come into your plant, was it your experience that you received fewer complaints as to balling up in your trucks where the mix had been received from plants of the Johnson type, if you know?

Mr. Lyon: I will object to that question, your Honor. This gentleman is supposedly a fact witness. I would like the testimony to be confined to his own personal experience. He is asked in this question to testify to things that were told him and not things that he learned from his own personal experience.

The Court: Overruled.

(Testimony of Carl W. Tilden.)

Mr. Sellers: Thank you.

The Witness: Yes.

Mr. Sellers: Will you please read the question?

The Court: You have got a "yes" answer.

Mr. Sellers: Then let it go.

Q. Can you at this time remember even a few of those instances which support that statement?

A. Well, one particular case that I recall was on a job where the specifications were quite rigid. The batch plant was located on the job site, and the haul was quite short. They were quite interested in meeting a minimum mixing period required in the specifications, but were having [259] difficulty achieving the proper mix within the minimum specifications. In other words, they were held at that particular time to a minimum of 40 revolutions on the drum, at which time they could discharge the load according to the specifications, but when they discharged the load, they found it was not a proper mix and they would have to continue mixing to get the mix. At this particular job, we went down and instructed the drivers on——

The Court: Where was the job?

The Witness: The job was in Kansas on an air base. It was quite a large contract. We went down and instructed the drivers properly on how to operate their mixers at the proper speed to get the best mixing action from our mixer.

Also we went hrough our regular routine on a matter of this type of watching the batching procedures and making recommendations on when the

(Testimony of Carl W. Tilden.)

water and cement and so forth, should be induced, and were able to improve their operation, but not to the satisfaction of the inspectors within the minimum requirement.

This condition existed, I believe, for almost six months or so, and later our district manager in the territory——

The Court: Just a minute. Did you go down on the job?

The Witness: No, sir.

The Court: All you know is what somebody told you? [260]

The Witness: That's right. These are from field reports and correspondence from our people at the scene.

Mr. Lyon: I move that the answer be stricken as based on hearsay.

The Court: You know, it is purely hearsay. I don't know how you can avoid the hearsay rule as to what somebody told him. Here is a job over in Kansas. Somebody told him so-and-so.

Mr. Sellers: Your Honor, I recognize the problem we have here and the hearsay rule is certainly a stumbling block we have to overcome. On the other hand, I ask your Honor where would you go to get the over-all picture but in the head office?

The Court: If he had records, if you had reports, you might be able to get the reports in.

Mr. Sellers: But just a minute, you wouldn't be able to identify those. Reports would not be——

(Testimony of Carl W. Tilden.)

The Court: You can get them in under the rules of the court. If you have got your records kept in the ordinary course of business, although they are hearsay, they can be gotten in.

Mr. Sellers: This information that the witness has received was received in the regular course of business. Do I understand only information which is written, received in the regular course of business, is admissible? This is information which he received in the regular course of business. [261]

The Court: The rule doesn't provide for the admission of evidence other than written evidence received in the regular course of business. Any memorandum or record——

Mr. Sellers: I will accept your Honor's statement, but with all due respect, it would seem to me that the experiences which he has encountered in the regular performance of his duties——

The Court: Well, I might call your attention to Section 1732 of the Code.

> "Any writing or record, whether in the form of entries in a book or otherwise, made as a memorandum or record of any act, transaction, occurrence or event shall be admissible if made in the regular course of any business, and it was the regular course of such business to make such memorandum or record at the time of such act or transaction."

It doesn't say any oral statements made. It is any record made.

(Testimony of Carl W. Tilden.)

Mr. Sellers: I should have had the Code and read it more thoroughly. That section doesn't help me. But I would look for another section. Very frankly, it seems not right that we should not be able to establish the experience of this man in his business. I don't ask that any particular instance to which he refers be verified, but I ask merely for the sum total of his various experiences. [262]

The Court: As far as I know, this might be a Johnson plant down there. I don't know what kind of a plant it was. He has never testified. I don't know whether he knows what type of plant it was.

Mr. Sellers: Well, let's ask him if he knows and how he knows and then we will have something to base it on.

The Court: Do you know what kind of a batching plant it was?

The Witness: It was a two-stop plant. They received the cement and the aggregate at different stations.

The Court: We have a one-stop plant here under consideration, and not a two-stop plant.

Q. (By Mr. Sellers): Let me ask you, Mr. Tilden, do you in your business keep any records which would relate and record the complaints of the type concerning which we have been inquiring about here which we might produce to satisfy his Honor?

A. We have records of correspondence where people have written in describing their trouble, yes, sir.

(Testimony of Carl W. Tilden.)

Q. Could they be made available? Would we have time to inspect those and the opportunity to inspect those or obtain those?

A. They could be made available, yes, sir.

Mr. Sellers: Your Honor, this witness only came to my office this morning for the first time and I would request that—— [263]

The Court: This case will go for a couple of more days. You can go down and make an inspection and see if you can find anything of importance.

Mr. Sellers: Then, your Honor, with that I would like to request that I be permitted to continue this witness' testimony until we have had the opportunity to do that.

The Court: Well, just leave that phase of the testimony open. I will allow you to recall the witness here if you can find any record or memorandum of these matters, but let's complete the other part of his testimony and also the cross-examination.

Mr. Sellers: All right, your Honor.

The Witness: I didn't finish my answer the last time.

Mr. Sellers: May he finish his answer, your Honor?

The Court: Yes, go ahead.

The Witness: You see, I mentioned that our field manager had visited the job location six months after we were down there to help correct their problems, and at that time they had installed a central flow plant and were meeting the specifications.

(Testimony of Carl W. Tilden.)

Mr. Lyon: May I move that that be stricken, your Honor, as based on hearsay?

The Witness: I wanted to finish.

The Court: The latter part may go out.

Mr. Sellers: The only valuable part may [264] go out.

Q. Do you have, Mr. Tilden, any record of those facts which we might find?

A. I think we can find it in our correspondence.

Mr. Sellers: Thank you, your Honor, for your help.

Q. Can you refer to any particular experiences in which you found it necessary to incorporate more expensive construction into your mix trucks by virtue of the fact that the mix plant was not giving you an adequate mix?

Mr. Lyon: Your Honor, may I object to the form of the question as not directed to his personal knowledge?

Mr. Sellers: I will limit it to his personal knowledge. I asked him if he could remember, I think, but we will limit it to his personal knowledge.

The Witness: Yes. In the case of cement balls we discussed a little earlier, in the case of cement balls where they persisted in the mix after we had covered most all of the other operational directions that we would normally suggest, where it was severe, we have installed in the mixers additional mixing fins of various designs to eliminate the balls in the mixer.

(Testimony of Carl W. Tilden.)

Q. Can you identify that particular plant to which you have referred?

A. On the addition of the finis, and so forth?

Q. Yes.

A. This particular plant was, I believe, a home-made [265] plant. In other words, there was no way of identifying it because several of these plants don't have their identification tags, and so forth, on them, but by type it was a side entry plant.

Q. Can you give us another illustration of a case in which you found it necessary to provide more complicated or expensive additions to the mix truck in order to handle the product of the batching plant?

A. A similar nature, in Las Vegas, was another one where we had a similar requirement that we made additions to the machine in order to break the balls up.

Q. Does the name Teichert and Son refresh your recollection?

A. Teichert and Son is the one I was talking about first.

Mr. Lyon: How do you spell it?

The Witness: It is Teichert and Son—I don't just exactly know.

Mr. Denny: It is T-e-i-c-h-e-r-t.

Q. (By Mr. Sellers): Would there be another example that you can recall?

A. An example would be Las Vegas Building Materials in Las Vegas, Nevada.

(Testimony of Carl W. Tilden.)

Q. Was there a San Gabriel Ready-Mix, a plant by that name? [266]

A. San Gabriel Ready-Mix, also, out here in the San Fernando Valley, we had to make the same additions to their machine.

Q. Can you state of your own knowledge whether any of those plants that did not give adequate mix and which required additional structure in your trucks, were any of those of the central feed Johnson type?

A. Not to my knowledge.

The Court: Did you see any of those plants?

The Witness: Yes, I saw the two here locally. I did not see the one in Las Vegas.

Mr. Sellers: I would like to ask this question, your Honor. Of course, it may be objected to.

Q. Can you state from your experience based upon the written records which we hope to be able to introduce tomorrow whether or not there have been any fewer complaints as to balling up from the batch plant owners of the Johnson type than from batch plant owners of other types of plants, based on your written records you have received?

The Court: You better save that question.

Mr. Sellers: I thought so, your Honor, but that is why I would rather not relinquish my direct.

The Court: Well, you can recall this witness on direct if you can find any records.

Mr. Sellers: All right, your Honor. On that understanding, then, I would like to submit him to cross-examination at [267] this time.

The Court: All right.

(Testimony of Carl W. Tilden.)

Cross-Examination

By Mr. Lyon:

Q. Mr. Tilden, are you familiar with the Nellis Air Base job in Las Vegas?

A. I am familiar with it, yes.

Q. Did trucks from your company participate in that job? A. Yes, sir.

Q. Were there any complaints as to the job that they were doing at that time? In other words, was the cement being properly mixed, the concrete being properly mixed, or not? Did you ever have any complaints from that job?

A. By memory again, the only complaint I can recall on that particular job was the rate of discharge.

Q. Did your organization find it necessary to replace the blades in your mixer trucks in order to comply with the specifications on that job?

A. No, we did not replace the blades.

Q. Are your trucks using the same blades that they used six years ago? A. No.

Q. You change your blades all the time, is that correct? [268] A. Not all of the time.

Q. Well, frequently.

A. Not frequently, no.

Q. How often do you change the blades of these mixers?

A. We have made four basic model changes.

Q. Why were those changes made?

A. To improve the ability of the machine to do its job.

(Testimony of Carl W. Tilden.)

Q. To avoid balling up?

A. Not specifically, no.

Q. Have you ever had a complaint that your mixer resulted in a balled-up job of batching, in mixing concrete? A. Yes, definitely.

Q. Was that complaint ever found to be based on the fact that the blades in your truck weren't doing the job properly, or some other part of your mixer was not doing the job properly?

A. No, sir, not when we pointed out it was happening to all other makes at the same time.

Q. In a mixer of your type, what is the life expectancy of the blades?

A. It depends entirely on the use of the unit.

Q. Say it is under constant use on a large project.

A. What slump aggregate and the abrasiveness of the aggregate is the factor? In other words, there are so many variable factors it is not possible for anyone to say it is [269] going to be a certain length of time.

Q. It is necessary, however, to replace these blades from time to time in your trucking equipment?

A. Yes. It is a normal type of operation as far as maintenance.

Q. If the blades become too worn, what is the result?

A. Obviously, if the blades become worn to a point; a certain point, it is going to affect the mixer's ability to do its work.

(Testimony of Carl W. Tilden.)

Q. And what will be the result of its not being able to do its work?

A. To mix and discharge concrete.

Q. Will you obtain balling up in such a mixer?

A. You could.

Q. Are you familiar with the Noble type of plant? A. Yes.

Q. Is that a concentric discharge type of plant?

A. Concentric? Do you mean is it central flow?

Q. Central flow type, if you prefer that expression. A. I would classify it as not, but close.

Q. Wherein does it differ from a central flow type of device? Perhaps I can help you.

A. If you could refresh my memory, it would be a big help.

Q. Have you seen this particular type of Noble construction? [270] A. In the field?

Q. Anywhere.

A. I have seen it in this book, but I haven't seen this specifically myself, no.

Q. You never have? A. No.

Q. Have you seen very many types of batchers, Mr. Tilden?

A. I would say a majority of all types of batchers I have seen.

Q. But you haven't seen that Noble batcher?

A. Not that specific one.

Q. What type Noble batchers have you seen?

A. The side entry Nobles by and large have been my experience with Noble.

Q. I believe you testified on your direct exami-

(Testimony of Carl W. Tilden.)

nation that you had some kind of trouble in Las Vegas yesterday, or was it Kansas City?

A. It was Kansas City yesterday. I don't know what it is today.

Q. You don't know what it is?

A. It is mixing time.

Q. It is mixing time. In other words, it is the fault of your particular operator on your truck not doing it right, [271] or the equipment is not in good shape, or something of that nature? Is that the usual type of complaint you get?

A. Not the usual type of complaint, no.

Q. Let me ask you this. Is it just as possible when you get one of these complaints that the operator isn't running his truck correctly as it is some other source? A. Very possible.

Q. Another possibility is that the truck itself has some defect in it, it is either too worn or something? A. Not the truck: The mixer.

Q. The mixer. Pardon me. Is your organization the largest maker of truck mixers in the country, or do you have major competition?

A. We sure do have some major competitors, yes, sir.

Q. How would you rank yourself, say, with the top two or three? A. No. 1.

Q. You think you are the top? A. Yes.

Q. Are you much larger than the next competitor or very close? A. It is a close race.

Q. How many of these competitors of substantially your size are there in the field?

(Testimony of Carl W. Tilden.)

A. Let's say there are three competitors besides ourselves. [272]

Q. And you sell closely the same number of truck mixers that your competitors do?

A. Yes.

Mr. Lyon: That's all.

Mr. Sellers: I would like to call the witness tomorrow, if we may.

The Court: All right. You may call him back in the morning.

Mr. Sellers: Thank you, your Honor.

The Court: If he can find any records, he can bring his records here and we will discuss them. You may step down.

(Witness withdrawn.)

Mr. Sellers: I would like at this time to call Mr. Pine as a witness.

ROGER PINE

called as a witness by and on behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name, please?

The Witness: Roger Pine.

The Clerk: How do you spell your last name?

The Witness: P-i-n-e. [273]

Direct Examination

By Mr. Sellers:

(Testimony of Roger Pine.)

Q. Will you please state your occupation, Mr. Pine?

A. I am a draftsman, patent draftsman.

Q. Where is your place of business?

A. Los Angeles.

Q. In your work do you make patent drawings?

A. Yes, we do.

Q. Do you also make drawings for use as exhibits in court cases? A. That is correct.

Mr. Lyon: If the Court please, I will stipulate Mr. Pine does this type of work. He has done it for me.

The Court: Is this just a foundation for these drawings?

Mr. Sellers: That's all, your Honor.

The Court: Won't you stipulate that?

Mr. Lyon: I will stipulate that the drawings were made by Mr. Pine. There is a question in my mind whether they fully disclose the plant, your Honor. I don't claim there is anything incorrect in them. I just don't think they are complete.

The Court: All right.

Q. (By Mr. Sellers): Did you last summer, I believe it was, Mr. Pine, go to the Stanton plant at Stanton, California, and make measurements and photographs of the Stanton hatching [274] plant?

A. Yes, that is correct.

Q. Did you do that for the purpose of making certain drawings in this case involved here?

A. Yes.

(Testimony of Roger Pine.)

The Court: May I ask Mr. Lyon a question? Do you raise any question about the drawings of the Stanton plant, that they are not correct drawings?

Mr. Lyon: There is only one question, your Honor. The drawings do not show the nature of the discharge of the aggregate hopper. Now, I can clarify that with Mr. Pine in a matter of one question.

Mr. Sellers: Well, if you have only one question——

Mr. Lyon: That is the only objection I have and I will clarify that.

The Court: The only purpose is to get these in.

Mr. Sellers: That's all.

The Court: Suppose you let Mr. Lyon ask the question and get them in evidence.

Mr. Sellers: They are in evidence, your Honor, but I want them clearly substantiated. Just ask your question, Mr. Lyon.

The Court: That is Exhibit 18, isn't it? [275]

Cross-Examination

By Mr. Lyon:

Q. Referring to Exhibit 18, what is the shape of the discharge from the aggregate hopper, square, circular, or oval? A. It is rectangular.

Q. Rectangular?

A. It is rectangular except for the additions, the continuation of the baffles, which come down to cover. It is basically rectangular.

(Testimony of Roger Pine.)

Q. This outlet at this point?

A. That opening there is rectangular.

The Court: May I ask a question relative to Section 33. You can look at that there. I assume that the aggregates are in these two right angles. Is that just vacant air there? Does that contain anything?

The Witness: That is vacant space. It contains the weighing hopper for the cement. If you will notice the section indication 33 on this view here, it is taken below the cement hoppers, so that has been eliminated in this view, so that all that we show down here is the discharge nozzle for the cement.

The Court: Then the aggregate is not all the way around the cement hopper?

Mr. Sellers: Would this help any, your Honor, to refer to Exhibit 14? He also made this [276] drawing.

The Witness: Yes, that is correct. We have these two baffle plates which divide the main weighing hopper, the aggregate weighing hopper, into three separate spaces. The central space contains the cement weighing hopper, which is shown here and here.

Now, the baffle plates or dividers are spaced from the bottom, or the opening of the main weighing hopper, the aggregate weighing hopper, so that the aggregate comprising sand and gravel will seep down underneath and cover this area here as shown in this sectional view 33 here.

Mr. Sellers: Of Exhibit 14.

(Testimony of Roger Pine.)

The Court: Then you would see that the aggregate is all the way around the circle that indicates the cement?

The Witness: Well, it is actually below it, as more clearly shown here (indicating).

Q. (By Mr. Lyon): At this point here it does not surround it, is that correct? A. No.

Q. At this point, at the point of discharge of the cement hopper, it is not surrounding it, is that correct?

A. No, not as I understand your question.

Mr. Lyon: There is only one further question, your Honor, if you are through.

The Court: I am through. All right.

Q. (By Mr. Lyon): Did you notice the shape of the discharge [277] from the cement hopper? Was it oblong or oval or was it circular, or do you recall?

A. No. I only had—I couldn't get down inside there and see it.

Q. You couldn't get inside to see it?

A. No.

Mr. Lyon: That's all I want to know.

The Court: Do you have any objection?

Mr. Lyon: The shape of that is different. It is not circular. We will establish that. I have no other objection to the drawings.

Mr. Sellers: You are referring to the lower end of the cement hopper?

Mr. Lyon: The lower end of the cement hopper has an oval opening 12 by 24.

(Testimony of Roger Pine.)

Mr. Sellers: Oval rather than circular?

Mr. Lyon: Right.

Mr. Sellers: That is the only difference?

Mr. Lyon: It makes quite a difference, but I will prove that in time.

Mr. Sellers: That is all we have, your Honor. Thank you very much.

The Court: All right. Now you can put your drawings into evidence.

Mr. Sellers: They are in evidence, your Honor, but there [278] might have been some objections later.

The Court: All right.

(Witness excused.)

Mr. Sellers: Your Honor, my next witness will be Mr. Stromberg, the defendant.

The Court: We have got 20 minutes. Let's put him on the stand.

Mr. Sellers: Very good.

MERLE W. STROMBERG

the defendant herein, called as a witness by the plaintiff, having been first duly sworn, was examined and testified as follows:

The Clerk: State your name, sir.

The Witness: Merle W. Stromberg.

(Testimony of Merle W. Stromberg.)

Direct Examination

By Mr. Sellers:

Q. What is your business, Mr. Stromberg?

A. Steel manufacturer of various types, including ready-mix plants and batching equipment.

Q. Wouldn't steel fabrication really be more accurate? You don't manufacture steel itself? You are a steel-fabricator?

A. A steel fabricator in various other items besides [279] ready-mix plants.

Q. And you do build concrete batching plants?

A. Yes.

Q. Mr. Stromberg, I show you Plaintiff's Exhibit No. 1 and ask if this is a drawing which you have prepared? A. Yes.

Q. To what does it relate, please?

A. It relates to an aggregate hopper with partitions and a cement hopper in between.

Q. The cement hopper is partitioned between the aggregate hopper? A. That's right.

Q. Is this a valve we find down at the lower end of the cement hopper?

A. That is a butterfly valve.

Q. Looking at the lower left-hand figure, what do we see down here? Will you please explain that to the court?

A. That is a top view of both hoppers and the partitions.

Q. We find a hopper on the left and a hopper on the right, and then do we find the cement hopper in between the two? A. That is correct.

(Testimony of Merle W. Stromberg.)

Q. Do we find hooks extending up from the cement hopper by which the cement hopper can be independently weighed? [280]

A. That is an indication of where the scales are hooked on.

Q. We don't see any means to connect the beams, or scale to the outer hopper, but would such means be provided for the outer hopper?

A. We do see those.

Q. The brackets we see are——

A. That is correct.

Q. All right. To what did this particular drawing relate, Mr. Stromberg?

A. I believe this drawing relates to a typical hopper that we have manufactured. It possibly could be used in one or more plants.

Q. Does it accurately show the relationship of the hoppers at the Stanton plant in Stanton, California?

A. It gives a general idea of the Stanton hoppers.

Q. Who made that drawing, the original of that drawing?

A. The original drawing—this drawing was drawn by Mr. Coyer.

The Court: Who is Mr. Coyer?

The Witness: He was an engineer for me at that time.

Q. (By Mr. Sellers): It was drawn by one of your employees? A. That is correct.

(Testimony of Merle W. Stromberg.)

Q. And whose idea was it? Whose design was this? [281]

A. I told him what I wanted and from there he gave me the necessary dimensions across the faces and the overall height that I would have to have before it could go to the shop for fabrication.

The Court: When did you tell him that? When did this all occur, do you know? Can you tell by the drawings when it occurred?

The Witness: The exact month, no. This was a little over a year ago.

The Court: A year ago?

The Witness: Yes.

Q. (By Mr. Sellers): This drawing was made over a year ago, the original was made over a year ago? A. Yes.

Q. Is this the first drawing of this type you remember made showing this type of construction?

A. The original drawing or the master drawing could have been made as long as four years ago.

Q. How do you place that time?

A. The first hopper that I built or had anything to do with was in 1950.

Q. In connection with what plant did you make that drawing?

A. The Gardena plant of Mr. Pearman.

Q. That was the first plant of this type that you built? [282] A. That is correct.

Q. Did you and Mr. Pearman work out together the details of this type of construction, or where did you get the design?

(Testimony of Merle W. Stromberg.)

A. I was told what he wanted and I drew it from there.

Q. You had never built a batching plant prior to that time? A. I had not.

Q. That was your first batching plant?

A. It was.

Q. Had you ever inspected a batching plant prior to that time?

A. I have been in the industry for 25 years.

Q. Please answer my question. A. Yes.

Q. You had, so that you were familiar with batching plants of different designs? A. Yes.

Q. Were you familiar with the batching plants of the central hopper type, central cement hopper type? A. No.

Q. You mean you had been in the batching plant business for 20 years and had never seen that type of plant? A. That is correct.

Q. Where were you in that business? [283]

A. I have followed dam construction from the time Boulder started until I went into the service, and that is an entirely different type of plant than what we have. All the hoppers are entirely different than what we are talking about here.

Q. You mean in those large operations?

A. That is correct.

Q. Mr. Stromberg, please——

The Court: May I ask you a question? Who told you about putting the cement hopper in the center? Where did you get that idea?

(Testimony of Merle W. Stromberg.)

The Witness: It was advocated that the customer wanted his hopper confined on account of space, and the idea was conceived that the center compartment of central location would be a logical point.

The Court: Who conceived it? Did you or Mr. Pearman?

The Witness: I was told by Mr. Pearman that he wanted his hopper in the center.

The Court: He was the one that told you that?

The Witness: I have seen the Noble construction which it has a hopper in the center, but only suspended on one scale. He wanted to have his center hopper, which is a center—the cement compartment, weighed on a separate scale due to the fact that he wanted to conserve the cement.

The Court: And he is the one who had the idea? It was [284] not your idea?

The Witness: That is correct.

Q. (By Mr. Sellers): Did I understand you to say he wanted to conserve the cement?

A. He wanted to conserve cement.

Q. What do you mean by that?

A. By weighing it on a separate scale, your graduations on a cement scale will be as a normal rule in three-pound graduations instead of 20-pound graduations.

Q. It made possible more accurate weighing?

A. Yes.

Q. And in part made possible conservation of cement? A. Yes.

(Testimony of Merle W. Stromberg.)

Q. Just to clarify my understanding, you had been in this business for 20 years, and at the time you designed this first plant at Mr. Pearman's request, you had never seen a plant of that type?

A. Not a hopper within a hopper.

Q. Nor a plant in which a hopper within a hopper has independent weighing means for the inner hopper? A. I had not.

The Court: May I ask a question?

This cement hopper within a hopper, with an independent weighing mechanism, did the question of putting that upon a scale or in a weighing mechanism present quite an engineering [2[illegible]] problem?

The Witness: No, it is not.

The Court: Not quite an engineering problem?

The Witness: No, definitely not. It merely means that there are two partitions added to the hopper to divide it so that the cement compartment will hang freely.

The Court: Was it any more difficult to put the cement hopper on a weighing apparatus than it was the other two hoppers, the aggregate hoppers?

The Witness: No.

The Court: So the fact that he wanted a separate weighing apparatus for the cement hopper didn't present any particular problem, is that right?

The Witness: As far as I am concerned, no, sir.

The Court: I thought that would be a problem.

Q. (By Mr. Sellers): I believe you said that he gave you the idea, Mr. Stromberg. Mr. Pearman gave you the idea, so it didn't present a problem to

you. If it presented a problem to anyone, he had already invented it, is that correct?

A. He did not invent it, as I understand it now.

Q. But as far as you were concerned at that time, he had conceived of that arrangement and he told you about it?

The Court: Mr. Pearman, I don't think ever testified he claimed an invention. He said he developed the idea.

Mr. Sellers: Yes. I used the wrong word, your Honor. I [286] mean as far as Mr. Stromberg is concerned, Mr. Pearman took the idea to him and it was novel to Mr. Pearman. As far as I know, Mr. Pearman doesn't claim to be an inventor either.

The Court: All right.

Q. (By Mr. Sellers): So it is a fact that in this construction we have the cement hopper positioned within the sections of the aggregate hopper and the two hoppers independently weighable, and the cement hopper discharging down through the discharge of the aggregate hopper? A. Yes.

Q. Is that discharge of the cement hopper positioned separately with respect to the discharge of the aggregate hopper?

A. Yes. It is directly above the hopper.

Q. And the discharge itself, when they go down through, isn't that the shaft of cement centrally positioned with respect to the shaft of aggregate?

A. The bottom gate on the aggregate hopper is oblong. The butterfly gate is round.

Q. I will put it this way. Is not the axis of the cement hopper positioned coaxially with the axis of the aggregate hopper? Are they not the same axis? You understand my language?

Mr. Lyon: I want to be certain he understands what you mean by coaxially. Those are patent attorney terms. [287]

The Court: I might not understand either.

Mr. Sellers: I am sorry, your Honor.

Q. What I want to determine is whether or not if you have the dimensions of your outlet of your aggregate hopper, whether or not a point right in the center of that discharge would not also be the same point, possibly displaced vertically, as the point which is directly in the center of your cement hopper.

A. The center of this opening, which would be here, is directly in the center of the butterfly valve.

Q. Directly below it. That answers my question. Thank you.

Mr. Sellers: I would like to offer in evidence Exhibit No. 6, your Honor.

The Court: It may be received in evidence.

The Clerk: It was received yesterday.

Mr. Lyon: 1, 5 and 8 are in.

Mr. Sellers: I would rather offer them twice than not at all, your Honor.

Q. Mr. Stromberg, I show you a photograph and ask you if you can identify this, what it shows.

The Court: Identify it from the front, not the back.

(Testimony of Merle W. Stromberg.)

The Witness: I am looking at the date.

Q. (By Mr. Sellers): I had in mind the front, Mr. Stromberg. [288]

A. Yes, I can identify it. That is Mr. Pearman's plant in Gardena.

Q. Who took that photograph?

A. I did. I had it taken, I should say.

Mr. Sellers: I would like to offer in evidence Exhibit No. 2.

The Court: It may be received in evidence.

The Clerk: Exhibit 2.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 2.)

Q. (By Mr. Sellers): I now show you a photograph which has been marked for identification Plaintiff's Exhibit 3 and ask you if you can identify that? A. Yes.

Q. From the front?

A. Yes. I still look at the back.

Q. What is it, please?

A. That is Jones Concrete in Santa Monica.

Q. Did you have anything to do with Jones Concrete in Santa Monica? A. I built this plant.

Q. Did you provide that photograph to this attorney, to the speaker? A. Yes.

Q. Does that plant include a centrally positioned cement [289] hopper between sections of an aggregate hopper with independent weighing means?

A. Yes.

(Testimony of Merle W. Stromberg.)

Mr. Sellers: I offer into evidence as Plaintiff's Exhibit No. 3 the photograph the witness has identified.

The Court: It may be received in evidence.

The Clerk: Exhibit 3.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 3.)

Q. (By Mr. Sellers): Is the plant which you have just referred to, and as shown in the drawing, Plaintiff's Exhibit No. 3, is that plant generally similar to the Stanton plant at Stanton, California?

A. The aggregate bins are identical. The weigh hopper, aggregate weigh hopper, I believe, is a half yard larger, but theoretically it is the same.

Q. Theoretically it is the same? A. Yes.

Q. Thank you. Now, I show you a sheet of yellow——

Mr. Lyon: Pardon me. Can we go a little further than that? There were some other aspects. You asked him if it was identical and I did not receive the answer.

The Court: You can develop that on cross-examination.

Q. (By Mr. Sellers): I show you a drawing which has been marked Plaintiff's Exhibit 4 for identification and ask [290] if you can identify that from the front? A. Yes.

Q. What is it please?

A. At the time this sketch was made by me, I was asked about the receiving hopper at the Stanton plant in Stanton, California.

(Testimony of Merle W. Stromberg.)

Q. Did you make this drawing to evidence the type of construction? A. I did.

Q. Does the drawing show a collector hopper, a doublewall collector hopper, with water coming in at the side and running into that collector hopper?

A. Yes, it does.

Q. And does it show a hopper, aggregate hopper up above the collector hopper, which is adapted to discharge down into the collector hopper?

A. Yes.

Q. I don't see, but I ask you, would there be a cement hopper also discharging down into that collector hopper?

A. It would be, because this was taken of the Stanton plant.

Mr. Sellers: I offer into evidence Plaintiff's Exhibit 4, the drawing referred to.

The Court: It may be received in evidence.

The Clerk: Exhibit 4. [291]

(The drawing referred to was received in evidence and marked as Plaintiff's Exhibit No. 4.)

Q. (By Mr. Sellers): I show you a blueprint of a drawing which has been marked for identification as Plaintiff's Exhibit 6 and ask you if you can identify this? A. Yes.

Q. What is it, what does it show, please?

A. It is a plant that we manufactured about three years ago.

Q. What plant is that, please?

(Testimony of Merle W. Stromberg.)

A. I'm sorry. Four years ago. It is now in operation at Lompoc, California.

Q. Was this drawing made for or by you?

A. It was made by me.

Q. Made four years ago? A. Yes.

Q. How does this plant compare in date with the plant which is the Gardena plant?

A. The Gardena plant was manufactured or fabricated in 1950.

Q. This was a later plant, then?

A. Yes. 1952.

Q. I see in the lower right-hand corner the name F. B. Hunter and a figure 2—is that 1952?

A. That is the month of February, 1952. [292]

Q. That would be when this drawing was made, would you say? A. Yes, during that month.

Q. What does this drawing show with particular relationship to the bins and the hoppers?

A. Well, it shows a 500-barrel silo with a transfer screw to the cement weigh hopper, which is weighed independently of the aggregate weigh hopper. The rock elevator, aggregate receiving pit and hopper, cement elevator, and cement unloading screw.

Q. Do we find an aggregate hopper positioned upon both sides of this cement hopper?

A. Aggregate hopper on both sides of the cement.

Q. Did you in this plant provide independent weighing means for the aggregate hopper and for the cement hopper? A. Yes.

(Testimony of Merle W. Stromberg.)

Q. And did the two hoppers, the cement hopper and the aggregate hopper, discharge together down into a collecting bin shown below?

A. They did not discharge together. One discharged ahead of the other.

Q. Wasn't that a matter of how the operator controlled it? Could they ~~not both~~ discharge together? A. Could have been.

Q. It was a matter of election on the part of the [293] operators?

A. It was an election to open both gates at the same time.

Q. That is always true in any plant?

A. Not for proper operation.

Q. Not for proper operation, but it is always possible in any plant, isn't it?

A. It is possible in any plant.

Q. And the cement and the aggregate discharge together down into a collecting hopper down below?

A. Yes.

Q. Did you sell the entire plant to these people who purchased? A. Yes.

Q. You didn't sell just the hoppers or the weighing means, but you sold the entire plant?

A. Yes, and erected the plant, also.

Mr. Sellers: I offer into evidence the exhibit which has been just identified.

The Court: It may be received.

The Clerk: Exhibit 6.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 6.)

The Court: Now, I notice it is 4:00 o'clock, and as I said yesterday, we like to quit at 4:00 o'clock. After a day [294] in court, I think counsel and also the personnel like to quit promptly.

May I inquire how many more witnesses you have?

Mr. Sellers: Your Honor, I believe this is my last witness unless overnight we have a brainstorm.

The Court: The reason I am asking is that so Mr. Lyon could have notice to proceed tomorrow with his witnesses.

Mr. Sellers: We are working together, your Honor; on a friendly relationship. I believe Mr. Stromberg will be my last witness unless we recall Mr. Tilden.

The Court: There are two attorneys on this case. One of you can go down to this last witness' office and see if you can find any memorandum.

Mr. Sellers: I would like to go, not Mr. Lyon.

The Court: All right. See if you can find any memorandum you think will qualify under the rule.

Mr. Sellers: We will, your Honor. Thank you.

The Court: Court will now stand in recess until 10:00 o'clock tomorrow morning.

(Whereupon, an adjournment was taken to 10:00 o'clock, a.m., Thursday, March 15, [295] 1956.)

Thursday, March 15, 1956—10 A.M.

The Clerk: No. 17,121-HW Civil, U.S. Johnson Company vs. Merle W. Stromberg, et al., further trial.

The Court: Are you ready?

Mr. Sellers: Ready, your Honor.

Mr. Lyon: Yes, your Honor.

The Court: You may proceed.

Mr. Sellers: I should like to offer in evidence, your Honor, as plaintiff's next in order, No. 19, I believe, a manual entitled Concrete Manual, United States Department of the Interior, Bureau of Reclamation. This is the sixth edition, 1955 date, with particular reference to pages 203, 204 and 205, particularly page 204.

I offer this under the provisions of the Federal Code, and particularly Section 1733, which reads as follows:

> "Books of records of account or minutes of proceedings of any department or agency of the United States shall be admissible to prove the act, transaction or occurrence, as a memorandum of which the same were made or kept."

Mr. Lyon: I will object to it, your Honor.

The Court: On what grounds?

Mr. Lyon: I don't think it has any pertinency. I don't see what purpose it is offered for, in the first place, but I [298] don't think this exception covers it.

The Court: Objection overruled. It may be received in evidence.

The Clerk: Exhibit 19.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 19.)

Mr. Lyon: I don't believe that exception covers it.

Mr. Sellers: Mr. Stromberg, please.

MERLE STROMBERG

the defendant herein, having been previously duly sworn, was examined and testified further as follows:

Direct Examination

By Mr. Sellers:

Q. Mr. Stromberg, you are the defendant in this action, aren't you? A. Yes.

Q. You appreciate the fact that I have a right to cross-examine you as an adverse party?

A. Yes.

Q. You know I have the right to lead you and to lead you into questions, and that you are under the obligation to tell the truth? A. Yes.

Q. You are aware of that fact? [299]

A. Yes.

Q. Mr. Stromberg, I now show you a drawing which for purposes of identification has been marked as Plaintiff's Exhibit No. 7, and ask if you can identify this construction. A. Yes.

Q. What does it comprise, please?

A. It is the batching plant, the bin storage and the cement storage of the Oberg Brothers plant, which I sold to them.

(Testimony of Merle W. Stromberg.)

Q. You sold to them? A. Yes.

Q. Did you construct this plant? A. Yes.

Mr. Sellers: I offer into evidence as Plaintiff's Exhibit No. 7, the drawing which has just been identified.

The Court: It may be received.

The Clerk: Exhibit 7.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit No. 7.)

Q. (By Mr. Sellers): I now show you another ozalid print of a drawing which for purposes of identification has been marked Plaintiff's Exhibit No. 9, and ask if you can identify this construction.

A. Yes.

Q. What does it show? [300]

A. Complete plant with rock elevator, bin storage, weigh hopper construction, cement silo, cement elevator, and truck unloading screw and transfer screw.

Q. Did you make and sell this plant?

A. This is a drawing of a standard plant. There would be no way of identifying this as a plant that was sold.

Q. Does it contain a cement hopper positioned centrally of the aggregate hopper?

A. This drawing does not indicate it, but it would have aggregate hoppers and scales, as well as cement.

Q. I see. In other words, this drawing shows the exterior construction; the details of the aggregate hopper and the cement hopper are not shown?

(Testimony of Merle W. Stromberg.)

A. That is correct.

Q. However, this is the type of drawing, rather, this is a drawing of the type of plant in which the aggregate construction and the cement hopper construction which we have been discussing here would be incorporated? A. Yes.

Mr. Sellers: I offer into evidence as Plaintiff's Exhibit No. 9 the drawing which has been identified.

The Court: It may be received as Exhibit 9.

The Clerk: Exhibit 9.

(The exhibit referred to was received in evidence and marked as Plaintiff's Exhibit [301] No. 9.)

Q. (By Mr. Sellers): Mr. Stromberg, did you ever see a hopper that did not have a discharge outlet?

Mr. Lyon: Your Honor, may I object to that until he clarifies what art he is talking about? Is he still talking about cement art or something else?

Mr. Sellers: I will limit it to the art of concrete batching.

Q. Did you ever see a concrete batching hopper that didn't have an outlet?

A. A concrete batching hopper?

Q. Yes. A. No.

Q. Did you ever see such a hopper that didn't have a body? A. No.

Q. And such hoppers always have inlets, don't they? A. Yes.

Q. Is it true, Mr. Stromberg, that in the Gardena plant which you constructed for Mr. Pearman that the cement flows into the stream of aggregate?

A. The stream of aggregate is on both sides of the cement.

Q. Well, now, will you answer my question as to whether or not the stream of cement flows into the stream of aggregate, whether the cement flows into the aggregate? [302] A. No.

Q. Is it a fact, Mr. Stromberg, that you gave a deposition in my office, I believe it was in February of the year 1955?

A. The date I am not sure of, but I was in your office and gave a deposition.

Q. Do you remember that at that time I asked you questions concerning the flow of cement relative to the aggregate?

A. I don't recall the question.

Q. Do you remember that I asked you concerning the Gardena plant, whether or not the cement flowed into the aggregate or not?

A. No, I do not remember.

Q. Well, to refresh your recollection, I will read from page 25 of your deposition given on Tuesday, February 21, 1955, in my office, beginning at line 21.

"Q. All right. Now, to summarize, it appears you are willing to identify the two plants that we have that you have made, the Gardena plant and the Stanton Ready-Mix, is that correct?

"A. That's correct.

"Q. All right. Now, in each of those plants is it accurate to say that we had separate weighing means for the cement and for the aggregate?

"A. That's correct. [303]

"Q. Is it accurate to say that in each of those two plants the cement was discharged concentrically within the aggregates?

"A. The cement was discharged from a butterfly valve through a common gate in the aggregate hopper.

"Q. That doesn't answer my question. I want to know if the cement was discharged physically within——

"A. Well, that did answer it, sir. It is a hopper within a hopper. It is a weighing mechanism by itself which is discharged at the same time or shortly after the aggregate has been discharged through a common gate.

"Q. So that the cement is positioned physically within the other aggregate?

"A. The cement is physically flowing through the other aggregate.

"Q. Concentrically, inside it?

"A. Flowing——

"Q. Answer yes or no, is it concentric?

"A. I wouldn't use the word concentric."

I would also like to read to you from the same deposition, page 27, beginning line 20:

"Q. Does the cement hopper feed into the flow of the aggregate? [304]

"A. The cement flows into the stream of aggregate."

Now, I would like to have you tell us, Mr. Stromberg, whether or not the testimony given at that

(Testimony of Merle W. Stromberg.)

time in which you said the cement flows into the stream of aggregate is accurate or whether or not the testimony given today, when you say it does not flow into the stream of aggregate, is accurate.

Mr. Lyon: May I object to that question until he specifies at what point in the apparatus he is talking about? Are you talking about the aggregate hopper or are you talking about the gathering hopper, or some place in between? Or are you talking about in the mixing truck?

Mr. Sellers: He was able to answer that question without difficulty. I read you the question and he answered it at that time.

The Court: Overruled.

Mr. Sellers: Please read the question.

(Question read.)

The Witness: The cement, or, rather, as the aggregate is being discharged from the hopper, such as the Gardena plant, there is an oblong opening on the aggregate hopper which allows the material to flow from two directions, allowing the cement to have a free fall from the bottom of the butterfly valve down to and would go into the stream of aggregate if the fall was far enough, which I believe is about two and a half [305] feet, and within a foot to 18 inches the cement will mingle or go into the aggregate.

Q. (By Mr. Sellers): In other words, your answer given in the deposition is accurate, the stream of cement does go into the stream of aggregate?

A. At a certain point, yes.

(Testimony of Merle W. Stromberg.)

Q. No one asked you about limitations. Thank you.

I now show you, Mr. Stromberg, Plaintiff's Exhibit No. 14, which shows the relationship of the aggregates in the aggregate hopper below the cement in the cement hopper.

Before going into the operation, I believe that counsel yesterday made some mention of the fact that the drawing didn't quite show the proper size for the discharge of the cement. Should it be larger or smaller?

A. The opening at this point for the cement?

Q. Yes. A. That is adequate.

Q. What dimension there isn't quite right, Mr. Stromberg?

A. I haven't—we weren't discussing, I don't believe, sir, Section 33, which is through here, which does not include this discharge gate. You don't see it at this point at all.

Q. Well, as we see it here——

A. That is the butterfly valve.

Q. Yes. Are the dimensions here relatively accurate? [306]

A. Relatively?

Q. Yes, substantially. A. Yes.

Q. Why do you have the side walls of the aggregate batcher here sloping?

A. So that the material on either side will flow freely when the bottom gate of the aggregate hopper is open.

(Testimony of Merle W. Stromberg.)

Q. All right. When you open your bottom gate of your aggregate hopper, doesn't gravity acting upon the aggregate cause that to come tumbling down the side walls in a transverse direction?

A. It does not tumble down. It has a folding action in the material. As the side of the material is sliding down, the center more or less folds over actually and comes on down through the gate.

Q. Would it be a fact that the aggregate on the right-hand side here would come down and, having gained speed in a slanting direction, would tend to continue off toward the center of the gathering hopper? A. No.

Q. It would not? A. No.

Q. Would it be a fact that each one of these particles having moved transversely down the bottom here would upon reaching the bottom here immediately turn a corner and go downwardly? [307] Is that your position?

A. The speed is not so that the material will have an opportunity to carry into the center.

Q. Did you ever measure the speed?

A. Measure the speed?

Q. Yes. A. No.

Q. Have you ever stood and watched some of the aggregate dribble out of a hopper, some of the remaining aggregate, and did it come right to the edge and fall down, or was it not a fact that it came out, slid down this incline, and tumbled over towards the center of the gathering hopper?

A. The remaining aggregate left in the hopper.

(Testimony of Merle W. Stromberg.)

Q. Well, do I understand you to say that the remaining aggregate would act in one way, and when there is more aggregate in there, it acts in another? A. Yes.

Q. Do I understand you to say that part of the aggregate is acted upon by gravity and part of it isn't?

A. It is all acted upon by gravity.

Q. Have you ever seen a ball roll down a roof, Mr. Stromberg? A. Yes.

Q. When that ball reaches the edge of the roof, does it go vertically downward from the very edge of the roof, or does [308] it describe an arc off the edge of the roof, so that it actually falls and strikes the ground, not right vertically below the edge of the roof, but off a space from the edge?

A. A space off.

Q. Why would not a piece of rock in this aggregate sliding down this inclined surface do the same thing?

A. It is very possible that it would have a slight movement off to a vertical position, but I doubt if anyone could ever measure it.

Q. Well, no one asked you to measure it. You seemed to know that it fell straight down, and I want to know why you know that it falls straight down. A. At this point.

Q. All right. Now, let's just take a piece of aggregate, rock in here, that comes sliding down this side wall. A. By itself?

Q. I don't care. We will put it by itself.

A. All right.

(Testimony of Merle W. Stromberg.)

Q. It slides all the way down from here, it slides down this incline. Do you mean to say that hitting here, it will then go straight down, or will it not go in an arc and tend to hit the center here?

A. A piece of aggregate sliding down that slope by itself will arc and be quite some distance from the edge.

Q. And wouldn't every other piece of aggregate in there [309] having the same direction of movement tend to do the same thing?

A. Not every piece.

Q. Well, which piece of aggregate wouldn't?

A. The mass of aggregate will have a tendency to drop vertically.

Q. How did this material get over here in the center? A. How did it get over there?

Q. Yes, the aggregate. A. The rock——

Q. Oh, I beg your pardon. Let's don't charge it. It is in the hopper. How did it get from up here down here? You have aggregate in the hopper. I want to know how does it happen there is any aggregate below the cement hopper?

A. Yes, there is aggregate.

Q. How did it get there?

A. It hit the sides of the weigh hopper and due to the fact that there was a void, it filled that void.

Q. All right. Now, we have aggregate sliding along the inclined surface. We have other aggregate on top of that? A. Yes.

Q. It is all tending to move down under the action of gravity? A. Yes.

(Testimony of Merle W. Stromberg.)

Q. All right. Woudn't the part on top form an upper [310] layer which would tend to move in the same general direction as the layer on the bottom? You have said that one piece would tend to be projected in an arc, and I ask you why another piece on top of that wouldn't tend to be projected in the same arc.

A. In a mass form I don't think it would be visually possible to determine the arc the mass would move toward the center.

Q. You are not a physicist, are you, Mr. Stromberg? A. I am not, sir.

Q. You are basing your opinion there upon what?

A. Practical experience and knowledge of batching equipment.

Q. Have you ever looked inside of the aggregate hopper to see what these pieces did up above that sloping surface? A. Yes.

Q. How did you look in there? From the side view? A. No, from the top.

Q. You looked in from the top, and all you could see was the top surface, wasn't it?

A. Yes.

Q. All right. So that you didn't know what these pieces were doing down here in the bulk of that aggregate, did you?

The Court: Do you know? [311]

Mr. Sellers: No, but I am not the witness, your Honor.

(Testimony of Merle W. Stromberg.)

The Court: Does anybody know? Nobody has been down there. You can't see.

Mr. Sellers: Your Honor, the fact of the matter is that this is a simple matter of physics, that if you have a sloping surface here and you have a mass going down that sloping surface——

The Court: There will be a slight arc, that is right, slight arc, and this witness says it is so slight that you can't measure it.

Q. (By Mr. Sellers): Did you ever try to measure the arc, Mr. Stromberg?

A. I had no reason to.

Q. You never tried to? A. No.

Q. When you say a slight arc, how slight do you think it is?

The Court: Have you got any evidence to show what that arc is?

Mr. Sellers: I have evidence to show that there is mixing taking place here and the aggregate is projected down into the center, and that the cement falling into it will mix with it, your Honor.

The Court: I know, but that doesn't say the extent of the arc. [312]

Mr. Sellers: Well, I think, your Honor, it is important to determine that the aggregate just doesn't hit the edge here and fall straight down.

The Court: Are you trying to convince this witness or me?

Mr. Sellers: I would like to convince you, your Honor.

The Court: I am convinced there is probably a small arc there.

(Testimony of Merle W. Stromberg.)

Mr. Sellers: You are convinced there is a small arc?

The Court: I am convinced there is aggregate coming down both sides and they hit in the middle.

Mr. Sellers: And you are convinced of that?

The Court: In the middle and they go down.

Mr. Sellers: And you are convinced, also, if I may ask, that the cement falls into that body of aggregate which is meeting along the middle?

The Court: That's right, they commingle.

Mr. Sellers: Fine. Thank you, your Honor.

Q. You built the Gardenda plant, you said, Mr. Stromberg. Where did you say you got that design?

A. The design of the plant was drawn by an engineer that formerly had worked for Conveyor Company.

Q. It was drawn, but where did you get the design?

Mr. Sellers: I wish just to make the point, where did he get it; not where anyone else got it, but where he got it.

Mr. Lyon: I believe he testified to that yesterday afternoon. [313]

The Court: I think he testified to it. I think you are going over the same ground.

Mr. Sellers: All right. I just want to make it clear.

Q. Did you say you got it from Mr. Pearman, that he gave you the design, is that correct?

A. He did not give me the design of the plant. He gave me his idea of what he wanted, as far as

(Testimony of Merle W. Stromberg.)

the aggregate and cement hoppers was concerned, and the cement and aggregate scales.

Q. He told you what he wanted?

A. But he did not design the plant.

Mr. Lyon: I object. This is going over the same ground he testified to yesterday.

The Court: Objection overruled.

Q. (By Mr. Sellers): Did I understand you to say, also, yesterday that prior to the time you made the Gardena plant, you had never seen a plant in which the cement hopper was positioned physically within the aggregate hopper, the two being independently weighable? Is my recollection right on that, did you say that? A. I did.

Q. Do you remember when you were giving your deposition in my office, Mr. Stromberg, I asked where you got the design for the Gardena [314] plant? A. I do not recall the question.

Q. I asked you:

"Q. Where did you get the design for the Gardena plant?

"A. The weigh hopper was, I believe, designed by an employee or former employee of Conveyor Company.

"Q. And where did he do that work?

"A. Where did he do the designing?

"Q. Yes.

"A. I think in his home, to the best of my knowledge.

"Q. What was his name?

"A. Well, I wouldn't know. The prints were

(Testimony of Merle W. Stromberg.)

made up and handed over to the subcontractor, you might call him, and the plant was fabricated from there."

Now, I would like to know, did you get the design from Mr. Pearman, as you said yesterday——

The Court: The testimony by Mr. Pearman was that he had the idea and Mr. Pearman didn't draw the design.

Mr. Sellers: No, your Honor——

The Court: This witness testified Mr. Pearman gave him the idea.

Mr. Sellers: Yes. [315]

The Court: If I remember the testimony correctly, after Mr. Pearman gave him the idea and told him what he wanted, he went and had the design made.

Mr. Sellers: Your Honor, I think there is possibly a misunderstanding in words and maybe that is an excuse, but design is merely the physical embodiment of the idea. In other words, you have an idea——

The Court: Mr. Pearman said, "I had the idea." He never said he drew the design. He said he had an idea and gave it to the defendant and the defendant went ahead and followed the idea.

Mr. Sellers: All right. You distinguish between the drawing and the mental concept.

The Court: Mr. Pearman never said he drew any plans.

Mr. Sellers: No, he didn't, your Honor. He said he had the idea.

(Testimony of Merle W. Stromberg.)

The Court: He said he had the idea.

Mr. Sellers: And gave it to the witness.

The Court: And the witness then proceeded with that idea and drew up the plans, as I understand it?

Mr. Sellers: Yes.

The Court: All right.

Mr. Sellers: It is my understanding from the testimony I have just read, your Honor, that the design for the plants came from a man who formerly worked for the Conveyor Company, [316] and I think that it is possible and, in fact, probable that the design embodied the ideas of the man who drew it up.

The Court: Well, we have got Mr. Pearman's testimony that he is the one who implanted the idea in the defendant's mind.

Mr. Sellers: Yes.

Q. Do you know whether or not it is a fact, Mr. Stromberg, that Conveyor Company prior to that time had built plants having a centrally positioned cement hopper and side positioned aggregate hoppers? A. Repeat the question, please.

(Question read.)

A. I do not recall the Conveyor Company building an aggregate hopper with the cement compartment in the center, on separate scales.

Q. By that you mean you never saw one of the plants they built?

A. I don't recall of seeing one prior to 1950. It is possible that the cement hopper would have

(Testimony of Merle W. Stromberg.)

been on the outside, or it is possible that it could have been on the inside, but I do not recall of a definite plant whereby they had the aggregate or cement hopper within and on a separate scale.

Q. But you do remember you never saw such a plant, either built by Conveyor or anyone else prior to the time you built the Gardena plant? [317]

A. To the best of my knowledge, I do not.

Q. Are you pretty certain about that?

A. I am.

Q. You are positive? A. I am.

Q. Is it a fact that as a general rule the batching plants which you have built, the cement was weighed in its own hopper in the center?

Mr. Lyon: May I have that question read?

(Question read.)

The Court: As I understand, the first batching plant you built was at the Gardena plant?

The Witness: That is correct.

The Court: After the Gardena plant was built and you built subsequent plants, did you always put the cement hopper in the center?

The Witness: Not always.

Q. (By Mr. Sellers): Did you as a general rule?

A. There were a number of plants whereby the cement was positioned in the center on a separate scale.

Q. Well, I would like an answer to my specific

(Testimony of Merle W. Stromberg.)

question, whether or not as a general rule you positioned it in the center.

Mr. Lyon: I object to that, your Honor, until we have some definition of what he means by general rule. [318]

The Court: Overruled.

Mr. Lyon: There is no showing whether the witness and he are thinking of the same thing.

The Court: Overruled.

The Witness: I would have to presume you are wanting me to give a percentage as to the number of plants I have built that have hoppers, separate hoppers for the aggregate and cement, in comparison to the total amount.

Q. (By Mr. Sellers): I don't want you to presume. A. I would say 50 per cent.

Q. Well, then, you would say it was not the general rule, it was about half the time?

A. Yes.

Q. I would like to read to you your answer to that question that you gave in the deposition above referred to.

"Q. Was the cement positioned centrally with respect to the other material being discharged?

"A. As a general rule, the cement was weighed or had a common hopper of its own in the center."

Mr. Lyon: If this is for the purpose of impeachment, your Honor, I would like to object to the form of the question. The question at that time was as to—what was it?

(Testimony of Merle W. Stromberg.)

Mr. Sellers: February, 1953, about three years ago. [319]

Mr. Lyon: Your last question was dated as of this date. The so-called general rule can change in a year.

The Court: Overruled.

Q. (By Mr. Sellers): It is a fact, is it not, Mr. Stromberg, that you can build two-scale plants that do not embody the cement hopper in the center?

A. It is a fact.

Q. Then how does it happen that in the plants you have built which, depending upon which statement we accept, you either put the cement in the center as a general rule, or 50 per cent of the time, how does it happen you put the cement in the center such a large part of the time?

A. It depends on the design of the plant, and if space is a particular item to be considered. Also, if the customer wants two scales, one for cement and one for aggregate.

Q. All right. At the Stanton plant was there any necessity of conserving space?

A. As far as area is concerned, no.

Q. Can't you have separate scales without putting the cement in the center?

A. You can have.

Q. Then I would like to have you answer my question, why it is that you prefer to put the cement in the center, even though you have separate scales, and even though you may not have any shortage of room? [320]

(Testimony of Merle W. Stromberg.)

A. The construction of the plant, you don't have to build it so wide, for one thing, and you don't have to raise it in the air another two or three feet to get the proper flow or angle for the cement to flow into your gathering hopper.

Q. In other words, the center position of the cement hopper gives you certain advantages that you find desirable, is that correct?

A. It does regardless of whether it has a scale or doesn't have a scale.

Q. Would you say it enabled you to build your entire plant lower, cut down the height?

A. I would say I can conserve about two feet and a half.

Q. Would you say that it enabled you to use less steel in building the plant?

A. That would be a minimum of cost.

Q. It enables you to operate the plant at less cost because you don't have to lift the material so high, isn't that right? A. No.

Q. Now, just a minute. If the plant is lower, you don't have to lift the materials as high, do you?

The Court: You are talking about two feet now.

Mr. Sellers: Your Honor, I would point this out to you. If you had to go two feet, with tons and tons of material, it [321] ceases to be two feet. It becomes a great deal of work and becomes very expensive, as any expert in this field will testify. Actually, two feet——

The Court: We have got an expert here.

Mr. Sellers: He is not my expert, your Honor.

The Court: You said any expert.

Mr. Sellers: I mean this is one of the defendants, your Honor, the defendant. I prefer not to make him my expert.

Q. If the two feet isn't important, why did you mention it, if that isn't one of the reasons you put the cement in the center, why did you bother to mention that? Is it important or isn't it?

A. I don't think it is important.

Q. Then why did you mention it as one of the reasons for putting the cement in the center?

A. The height of the aggregate elevator would be increased two feet and your normal flow of your material from your swing spout on top of the plant into the two outside bins can either be two feet off from the bin, or you can have the chutes directly down on top of the bin, or almost on top of the bin. That two feet could be taken up in the rock elevator itself. Although the plant can be raised, you would not have to raise the height of the rock elevator and still you would get the same discharge into any one of the four compartments.

Q. Do I understand you just got into the habit of making [322] the plants two feet lower? You don't consider it to be important, but you just do that because you got in the habit of it?

A. I believe one of the drawings you just showed me——

Q. I would like to have my question answered.

A. I believe one of the drawings you just showed me this morning would show that there is a concrete footing underneath each column of the plant.

(Testimony of Merle W. Stromberg.)

Mr. Sellers: I move that answer to be stricken, your Honor. It is not responsive.

The Court: It may go out.

Q. (By Mr. Sellers): Now, I would like to have you answer my question.

Mr. Lyon: If allowed to complete the answer, I think there is the point you are driving at.

The Court: Well, he didn't answer the question, except indirectly. He can answer the question and then he can explain the answer if he wishes.

Q. (By Mr. Sellers): You have mentioned in addition to the decrease in height which you gave as a reason for using the cement in the center and then said it was not important, you also gave the matter of the flow of cement into the plant as being a feature concerning which you gained advantage by the center positioned cement hopper.

Explain that, if you will, please. [323]

A. Well, you reduce the size of the gathering hopper in diameter, if it is a round one, or it could be an oblong gathering hopper, if the cement is positioned in the center. It will allow your gathering hopper to be a great deal smaller.

Q. And what is the difference there? Of what importance is that?

A. Well, the importance there, I believe, would be the controlling the aggregate in the gathering hopper a little bit better.

Q. Controls the aggregate in the gathering hopper better?

A. That's right, if it is smaller.

(Testimony of Merle W. Stromberg.)

Q. If it is smaller. All right. Does it have any other advantage in making the gathering hopper smaller?

A. By making the aggregate hopper smaller, you——

Q. Not the aggregate hopper, the gathering hopper.

A. I am sorry. By making the gathering hopper smaller, it will decrease actually in the overall height of the plant, too.

Q. In other words, you cut down the overall height of the plant then by virtue of the fact that the gathering hopper is smaller. Why is that?

A. I believe I just answered that.

Q. You have said the fact that the gathering hopper is smaller makes it possible to lower the plant, I believe? [324] A. Yes.

Q. All right. I ask you why, how?

A. By reducing the height, you are not using the footage of steel as far as structure is concerned.

Q. All right. In other words, it does effect a saving through reducing the size of the gathering hopper and further reducing the size of the plant, is that correct? A. Yes, a minimum.

Q. Now I ask you, you stated that by having a smaller gathering hopper, your actually protected the aggregate. Isn't the cement protected?

A. The cement is proportioned, ribboned from the center compartment where the cement is down through.

(Testimony of Merle W. Stromberg.)

Q. What do you mean by ribboned?

A. Well, by using the butterfly valve, you have a ribbon effect on your cement.

Q. Supposing you open the valve completely, do you have any ribbon effect?

A. When you open the valve completely, the valve itself is in a vertical position. You have a stream then.

Q. All right. So that the ribbon is only something that is incidental, depending upon whether you position the valve in a partially open position or not?

A. It is very important, because it is controlled by the operator. [325]

Q. Yes, but he need not have a ribbon if he doesn't want it, need he?

A. If he is discharging his aggregate and cement at the same time, he ribbons the aggregate as well as the cement.

Q. Will you please answer my question? Does he need to have a ribbon if he doesn't want it? Can he open his valve and discharge the cement and aggregate together? A. Yes.

Q. And open the full width of the discharge?

A. Yes.

Q. And you don't have a ribbon then, do you?

A. You have a flow.

Q. Answer my question. You don't have a ribbon, do you? A. No.

Q. Thank you. All right, now, I want to get back to the point you said you protected the aggre-

(Testimony of Merle W. Stromberg.)

gate by making the hopper smaller. I asked you whether or not you didn't also protect the cement. I don't believe I received an answer to that.

The cement is really the valuable subject here. It costs much more than the aggregate, does it not?

A. Yes.

Q. Now I want to know whether the cement isn't protected in the smaller hopper from being lost, being blown away, or [326] from any other disadvantage?

A. I don't see what protection you would have unless there was a shroud between the gathering hopper and the weigh hopper.

Q. Will you kindly explain, then, why it is the smaller hopper is able to protect the aggregate and is not able to protect the cement?

A. Well, it does protect the cement.

Q. Thank you. I thought you said it didn't.

A. It does protect the cement, but if you have a shroud completely around the gathering hopper attached to your weigh hopper, a flexible shroud, you have 100 per cent protection.

Mr. Sellers: I move the last be stricken as not responsive, your Honor.

The Court: Denied.

Q. (By Mr. Sellers): Now, I would like to know, supposing instead of having a central feed for the cement, as you have here in the Stanton plant, you have the cement come in from the side in a side feed down into this gathering hopper, would you please describe the action that takes

(Testimony of Merle W. Stromberg.)

place in that event? To make it clear, the cement comes in from the side of the gathering hopper in a side feed plant. Is that typical of a side feed plant? A. That could be typical. [327]

Q. So that instead of the cement coming down through the center as we have it here in the Stanton drawing, Exhibit No. 14, it comes in and comes down the side of the hopper, and that would also be at one side of the stream of aggregate, would it not? A. Yes.

Q. Do you know what happens down in the gathering hopper under those conditions?

A. Your stream of aggregate would be flowing directly down and your cement would be coming in from a side angle.

Q. What happens to the cement?

A. There would be a portion of the cement dust that would gather or collect around the gathering hopper.

Q. In other words, the stream of aggregate going down through the gathering hopper would cause the cement coming in at the side to be formed into dust and you would lose a lot of cement, would you not?

A. No, you would not lose a lot of cement, but your would have a dust problem.

Q. Well, what forms the dust?

A. It doesn't take a great quantity of cement to make a lot of dust.

Q. Well, I want to know what forms the dust?

A. Cement and dry aggregates, if you have dry aggregates. [328]

(Testimony of Merle W. Stromberg.)

Q. In other words, with the cement coming down the side and striking the stream of aggregates, some of the cement is formed into dust?

A. It will develop a dust before it ever hits the aggregate.

Q. Upon striking the aggregates, will it form more dust?

A. No; I don't believe it would, because there is moisture in the aggregate, and I believe it would more or less control it, to a certain extent.

Q. Let's assume that the aggregate isn't moist. What happens then?

A. I wouldn't say that the dust would increase. I think it would remain about the same.

Q. In other words, you would get about the same amount of dust, say, sliding the cement down the side of the hopper as you would having a fast dropping stream of aggregates going right by it, the same amount of dust in each case?

A. If the cement is being discharged into the side of the gathering hopper; yes.

Q. In the Stanton plant type of construction, Exhibit No. 14, where the aggregate is positioned around and encircles the stream of cement, even though there is intermingling, as you have stated, would it not be a fact that you would have aggregate around the sides of the cement and that therefore [329] you would have less forming of dust?

A. They still have a dust problem. It is very possible it does cut the dust down a little bit.

(Testimony of Merle W. Stromberg.)

Q. Now, I don't want a probable. I want to know whether or not you have observed this type of plant in operation and whether or not you don't know as a matter of fact.

A. I do know; yes.

Q. And it does cut it down; doesn't it?

A. Yes; it does.

Q. Referring now to this Exhibit 14, would you please, with a pencil, mark on the Fig. 3 the approximate size of the opening which you believe should be there, rather than the opening which is now present, if you can?

A. Opening of what?

Q. I don't know. I believe Fig. 3 is not quite accurate according to your understanding, and I would like to have you indicate just where you think it should be changed.

The Court: You will have to mark it so it can be seen.

Mr. Denny: What do you say we make an overlay on that?

Mr. Sellers: All right, if you have transparent paper, you can indicate on there, can't you, with the pencil?

The Witness: Yes.

Mr. Sellers: And we can darken it later, your Honor.

(Witness complying.)

Q. (By Mr. Sellers): You have drawn two parallel lines [330] on Fig. 3 of Exhibit 14, Mr.

(Testimony of Merle W. Stromberg.)

Stromberg. What did you intend to indicate by those two parallel lines?

A. The opening, or the gate, rather, at the bottom of the aggregate hopper.

Q. Would that change the operation of the construction, in your opinion?

A. It changed the construction.

Q. In what way?

A. Instead of having round openings as indicated in Fig. 3, my discharge gate on the aggregate is an oblong gate 12 inches by 24 inches.

Q. Is it not a fact that the round member shown in the center, I think the fact is that the round opening shown in the center is the butterfly valve in the cement hopper, Mr. Stromberg?

A. That's right.

Q. Actually, you don't see the valve. The valve is down below the aggregates that you see in Fig. 3, if I am not mistaken.

A. I do not have a straight solid line there. I have a broken line which indicates my gate below.

Q. In other words, the drawing is not inaccurate, but, in other words, you merely would like to have shown something that is down below the aggregate?

A. That is the complete description then of Fig. 3 taken [331] at this elevation.

Q. Taken at that elevation. At that elevation, what you see on that elevation, without going below, Fig. 3 is accurate; is it not?

A. That is correct.

(Testimony of Merle W. Stromberg.)

Q. It has been suggested by counsel, Mr. Stromberg, if you will make an overlay of the change you put on Fig. 1 there, mark the outside dimensions, then you can check it on another figure and see if it is accurate.

Mr. Deiny: Just draw the same lines there as you would like to have them appear here, and you can check them for accuracy. For example, if these lines here take a certain position, they should correspond with the discharge here, if it is correct.

Mr. Sellers: The point, your Honor, not that it is important, but the lines Mr. Stromberg has drawn, the dotted lines, are not seen looking down here. This is a view looking down.

The Court: But he didn't make the drawing. He is just saying how the drawing should have been made according to his opinion.

Mr. Sellers: That is correct. If any importance is attached in that change from the standpoint of operation, we would like to know it.

The Court: I don't know whether it is important or not. [332] I don't know what difference it makes.

Q. (By Mr. Sellers): Mr. Stromberg, do you view that change as being of any importance?

The Court: I don't know how it is going to affect this case in any way. It may be important in how the plant operates, but as far as this case is concerned, I don't know how it is going to affect it.

Q. (By Mr. Sellers): Do you know how the change in dimensions you have identified there,

(Testimony of Merle W. Stromberg.)

Mr. Stromberg, would have any effect upon the operation of the cement hopper or the discharge of the aggregate hopper? Would they not discharge the same way? A. Yes.

Q. Thank you very much. In addition to the Stanton plant, Mr. Stromberg, did you also make a Jones Concrete Plant in Santa Monica?

A. Yes.

Q. Is it not a fact that the Jones plant is, member for member, almost identical to the Stanton plant?

A. On the bin structure, the rock elevator, the weigh hoppers and the scales; yes.

Q. So that everything that we are concerned with in this action, we have discussed here, substantially member for member, the Jones plant is identical with Stanton?

A. The Jones plant is identical, member for member, on [333] the aggregate weigh hopper and cement weigh hopper.

Q. And their relationship as shown in Exhibit 14? A. Yes.

Q. Did you make a plant located in Culver City, Mr. Stromberg? A. Yes.

Q. Was it the same type as the Stanton plant?

A. No.

Q. Did it have a central hopper, cement hopper, with side aggregate hoppers? A. Yes.

Q. Independently weighable? A Yes.

Q. Would not Exhibit 14 here identify the type of construction you had in the Culver City plant?

(Testimony of Merle W. Stromberg.)

A. It would identify the aggregate hoppers and the cement hopper.

Q. And its type of operation was similar to the operation we have been discussing in connection with the Stanton plant?

A. Yes; outside of the gathering hopper.

Q. Is it true you sold a plant of this type to Oberg Brothers in Los Angeles?

A. Yes; outside of the gathering hopper.

Q. Is it true you sold such a plant to the S. P. Milling [334] Company in Santa Maria, California?

A. No.

Mr. Lyon: Your Honor, may I inquire of counsel as to the purpose of this? My understanding is there will be an accounting for damages if there is any liability later. He is just asking him if he built such and such a plant.

The Court: Well, I am wondering. It seems to me you have established that there are at least several plants here that are similar to the patented plant. Do you have to go any further?

Mr. Sellers: Your Honor, I am quite willing to drop this line if it is understood we have only proved an example and the matter of damages depends on the extent of the infringement. I don't need to push the questions further along this line with that understanding.

Q. I would like to ask one more question concerning the building of the Gardena plant. Did you, prior to the time you built the Gardena plant, ever

(Testimony of Merle W. Stromberg.)

see a weigh batcher in which the cement was discharged into the center of the aggregate discharge?

A. Would you repeat the question?

Q. Did you, prior to the time you built the Gardena plant, ever see a weigh batcher in which the cement was discharged into the center of the aggregate discharge?

A. Yes. They were on the same scale. [335]

Q. In other words, they had a central discharge all on one scale? A. Yes.

Mr. Sellers: Any examination, Mr. Lyon?

The Court: Well, it is 11:00 o'clock, and I think we will take the morning recess. We will now recess until 10 minutes after 11:00.

(Recess.)

The Court: You may proceed.

Mr. Lyon: At this time, your Honor, I would like to inquire as to the procedure your Honor desires to follow. Do you want me to take Mr. Stromberg off the stand and put him back on later? I have a lot of things Mr. Sellers has not gone into. Or do you want me to cross-examine him on what Mr. Sellers has inquired about?

The Court: It doesn't make a particle of difference to me.

Mr. Lyon: I would just as soon take him off the stand, assuming I am not waiving any opportunity to go into these matters if I put him on in my case.

(Testimony of Merle W. Stromberg.)

The Court: As far as I am concerned, you are not waiving anything.

Mr. Lyon: Then I have no questions.

The Court: You may step down.

(Witness withdrawn.) [336]

Mr. Sellers: Mr. Pinne, will you take the stand, please?

DOUGLAS E. PINNE

called as a witness by and on behalf of the plantiff herein, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name, please?

The Witness: Douglas E. Pinne.

The Clerk: Will you spell your last name?

The Witness: P-i-n-n-e.

Direct Examination

By Mr. Sellers:

Q. Mr. Pinne, in your testimony the people over at the attorneys' table want to hear what you say, so will you speak a little louder, please?

Mr. Pinne, what is your occupation, please?

A. I am a superintendent of a rock concern in Southern California.

Mr. Lyon: I can't hear what the witness is saying.

The Court: You will have to speak up a little louder.

(Testimony of Douglas E. Pinne.)

The Witness: I am superintendent of distribution for one of the rock companies in Southern California.

The Court: Well, is it a secret?

The Witness: No, sir. [337]

The Court: Which one is it?

The Witness: Consolidated Rock Products.

The Court: Consolidated Rock Products. All right.

Q. (By Mr. Sellers): How long have you held that position, Mr. Pinne?

A. For about eight years.

Q. In that position do you have charge of ready-mix batch plants? A. Yes, sir.

Q. About how many? A. At present, 23.

Q. Do you also have charge of the trucks of the type that carry the mix from the plant to the job?

A. I am responsible for the concrete that is hauled in the ready-mix trucks.

Q. And about how many of those do you have?

A. I believe, at present, 230.

Q. In order to give the court some of your background, I wonder, Mr. Pinne, if you will be so good as to give some of your experience in this field in order that the court may know how much weight to give to the evidence that you are about to give. Going back, let us say, to your job as a weigh master, when was that?

Mr. Lyon: May I inquire, sir, are you trying to qualify this man as an expert? [338]

Mr. Sellers: No; I am not trying to qualify him

(Testimony of Douglas E. Pinne.)

as an expert except to this extent. I am going to ask him some opinion questions, and to that extent he will be an expert; but he is also here as a fact witness, the type his Honor wanted, witnesses who not only had seen the theory but had stood beside the truck, and this gentleman has stood beside the truck. I am trying to give the court——

The Court: Go ahead. There is no objection.

Q. (By Mr. Sellers): Will you please state your background, Mr. Pinne?

A. I started to work for the predecessor of Consolidated Rock in March, 1925, as a public weigh master. Through the years, I did different jobs within the company from a weigh master to equipment operator, and finally ready-mix concrete came along, and in its infancy we built our own plants—our plant in those days.

Along about, I believe, 1933, I accepted a position. I passed a civil service examination with the State of California and was with the Division of Highways for a year.

Q. In what capacity?

A. Equipment and maintenance.

Q. What type equipment?

A. All types for the State, whatever they happened to have in that district.

Q. Were you a shovel operator back in about 1933-1934? [339] A. That's right.

Q. And around 1934-1935 were you a batching plant operator? A. Again with this company.

(Testimony of Douglas E. Pinne.)

Q. With the Consolidated Rock Products Company? A. That's right.

Q. Just for the record, how big a company is Consolidated Rock Products Company, relatively? Is it one of the big ones in the country?

A. It is the largest west of the Mississippi.

Q. Back in 1934 and 1935, what type of a plant was it at that time? Was it a single stop plant or what type? A. Well——

Q. Or multiple stops? A. Multiple stops.

Q. And then in 1935-1936, you became a shovel operator again; did you? A. That's right.

Q. That was loading rock and gravel and that sort of thing? A. That's right.

Q. Then about 1936 to 1944, what were you doing in that period?

A. Back in maintenance and repair and erection of later-type batch plants. [340]

Q. For what company?

A. Consolidated Rock Products.

Q. Did you come in contact with all types of batching equipment at that time?

A. Practically all the time.

Q. Did you come into contact with the various types of concrete conveying means, including mix trucks and dump trucks? A. Yes.

Q. Then from 1944 to 1946, what were you doing in that period?

A. I was in business for myself in the ready-mix concrete.

Q. Were you operating a plant?

(Testimony of Douglas E. Pinne.)

A. Yes.

Q. And then from about 1946 to—put it this way, when did you go to work for the Consolidated Rock Products Company the last time?

A. In December, 1947, I believe.

Q. Would you like to think about that? Are you sure of that date? A. 1948.

Q. Thank you. At the time you went to work for the Consolidated Rock Products Company on December 1, 1948, how many batching plants did the company have at that time?

A. I believe approximately 11. [341]

Q. Eleven. Did you at that time take your present job as superintendent of distribution?

A. Approximately the same job I had.

Q. Were these various plants under your control and direction? A. Yes.

Q. Were these plants of different types?

A. Just about every type.

Q. About every type. Were some of the plants of the type having a central cement hopper with aggregate hoppers at the side? A. Yes.

Q. Were some of the plants the type having the cement hopper outside and at one side of the aggregate hoppers? A. Yes.

Q. Did you operate these plants? A. Yes.

Q. Did you watch them while they were in operation? A. I did.

Q. Was the operation of these plants under your control and direction? A. It was.

Q. At that time how many, approximately, con-

(Testimony of Douglas E. Pinne.)

crete carrying trucks were under your control and direction?

A. I believe at that time we had 65. [342]

Q. 65. Did you come into intimate contact with these trucks? A. Yes.

Q. Was their operation and repair under your control and direction? A. No.

Q. What connection did you have with them?

A. Responsibility of the proper concrete or mix, may I say, getting inside of those trucks.

Q. Did you come in contact with them in the operation of the batching plants? A. Yes.

The Court: May I ask the witness a question?

Mr. Sellers: Surely.

The Court: When did you first obtain any knowledge of the Johnson batching plant? What was your first knowledge of the Johnson batching plant?

The Witness: I first came in contact with it in about 1948, to have a real knowledge of it.

The Court: Well, I didn't mean real knowledge. When did you first know there was a Johnson batching plant?

The Witness: Well, of course, in the trade journals I have read their advertisements for a number of years.

The Court: When did you first see one, then?

The Witness: Let's see. This is 1956. [343]

The Court: Speak up loud so the attorneys can hear you.

(Testimony of Douglas E. Pinne.)

The Witness: Well, to be safe, I will say in 1948.

Mr. Sellers: May I suggest, your Honor, that possibly you might refer to plants of the Conveyor Company type. Does that take the date back?

The Court: Now, just a minute. You say that in 1948 there were 11 batching plants, Consolidated had 11 batching plants.

The Witness: That's right.

The Court: These 11 batching plants in 1948, how many of them had the concrete bin, the concrete in the center of the gravel and sand?

The Witness: I believe there were six at that time of the 11.

The Court: Six?

The Witness: I believe so.

The Court: Do you know when those six were first installed?

The Witness: No; I do not know when they were installed, because they were bought second-hand, some of them, and two of them were built new. I do not remember the dates.

The Court: In 1934 and 1935, you said that there were some batching plants there that you had supervision of.

The Witness: No; I had no supervision in those days. I was a batch operator. [344]

The Court: You were a batch operator?

The Witness: Yes.

The Court: When you were a batch operator,

(Testimony of Douglas E. Pinne.)

did you operate a plant where the cement was in the center?

The Witness: No; not at that time.

The Court: When did you first come in contact with any batch plant where the cement was in the center?

The Witness: I would say along about 1940.

The Court: 1940. Speak up loud, now.

The Witness: About 1940, I believe. I am not positive without looking over my old payroll sheets and the like of that to refresh my memory. I had no idea I was going to be here today.

The Court: Your best recollection is that you——

The Witness: I believe so.

The Court: ——you didn't come in contact with batching plants that had the cement in the center until about 1940?

The Witness: Yes. I think that is pretty close, I believe, as close as I can recollect.

The Court: Did you have any at the Consolidated at that time?

The Witness: In 1940? Yes.

The Court: You don't know how long they were there?

The Witness: No; I do not, because before that I was at one place rather than in charge of anything. [345]

The Court: All right.

Q. (By Mr. Sellers): When you went to work for Consolidated on January 1, 1948, they did have

(Testimony of Douglas E. Pinne.)

batching plants of the type in which there was a central cement hopper with an aggregate hopper on the side of that? A. Yes, sir.

Q. Was it or was it not a fact that Mr. Merle Stromberg was employed by that company at the time you went to work there? A. Yes, sir.

Q. And was it not a fact that Mr. Merle Stromberg remained employed with that company for a period of 21 days after you went there and quit the company to the best of your information and belief on December 21, 1948? A. Yes, sir.

Q. And at the time, to repeat, there were in the Consolidated Rock Products Company's business and under your charge plants of the type in which there were a centrally positioned cement hopper and aggregate hoppers at the side, the cement hopper discharging down through the aggregate hoppers? A. Yes, sir.

Q. At the time you went to work for Consolidated in December, 1948, what were Merle Stromberg's responsibilities?

A. He was in charge of a maintenance crew.

Q. Maintenance, doing what? [346]

A. Repairing the batching plants and anything to do with them, bunkers and anything that had to do with the batching plants.

Q. The batching plants of Consolidated?

A. That's right.

Q. Now, is it a fact, Mr. Pinne, that you have operated batching plants, you have watched batch-

(Testimony of Douglas E. Pinne.)

ing plants in operation, and you have inspected batching plants? Will you please answer that?

A. I did not understand.

Mr. Sellers: Please read the question, Mr. Reporter.

(Question read.)

The Witness: Yes, sir.

Q. (By Mr. Sellers): Is it a fact that in your position as manager for Consolidated, you have the authority to purchase batching plants?

A. Yes, sir.

Q. And you also have the authority to move them from place to place, if that be necessary?

A. Yes.

Q Have you in your experience had occasion to observe the operation of batching plants of the side feed type? A. Yes, sir.

Q. Would you please describe what you have observed in the operations of the plants of the side feed type as [347] distinguished from the central feed, which is the type we see illustrated in Exhibit 14? I think you are familiar with it. The cement feeds into a central hopper down through the aggregate, which comes from hoppers on the two sides? A. Yes; that's right.

Q. Will you describe what you have seen in your observation of the side feed plants?

A. We have a problem of applying the cement, may I say, to the aggregate in a satisfactory man-

(Testimony of Douglas E. Pinne.)

ner in the gathering hopper when it feeds in from the side.

Q. Would you please explain what that problem is?

A. The cement is not falling vertical and, consequently, when it is turned on with the aggregate, it has a tendency to spill or fluff up, as it were.

Q. Mr. Pinne, I wonder if you would step down from the stand and on the blackboard draw a diagram for the benefit of the court of the relationship you have in mind.

Mr. Lyon: Before he does that, may I have the answer to the last question?

Mr. Sellers: Will you please read it?

(Answer read.)

Q. (By Mr. Sellers): Would you like to draw on the blackboard, please, Mr. Pinne, if his Honor is willing, a showing of the relationship you have just described?

A. I am not a very good artist, but assuming that this [348] is an aggregate weigh box here and, of course, underneath the aggregate weigh box is a gathering hopper, under which the truck is placed to receive the material.

When you have a cement weigh box on the side, of course, your problem is getting in here. If you discharge that cement here while this aggregate is going down, this cement has a tendency to boil out the top of this against this dam of material here.

So to overcome that, you try and run a pipe down

(Testimony of Douglas E. Pinne.)

into this, and then the moisture accumulated around this actual pipe in here, to get away from this boiling action, becomes damp and the cement cakes on that, and consequently you have got a restriction there.

Also, our plants are used, and everyone's plant is, practically, for not only ready-mix concrete, but dry batching. Dry batching is merely a dump truck with gates in the middle, and you put the aggregate and the sand and cement in there, and it is hauled, in our case to these freeways around here, and each batch is dumped into the skip of the mixer on the grade.

In this type of operation, we change this gathering hopper here because of the fact that the dump truck is square, and if you dump it all in a pile in the center, it will run over the top of the batch truck, so you have to spread the material out, and as this cement comes down in this type weigh [349] box, it has a tendency to shoot clear over and get on one side and stick in the truck and blow away and all of that, rather than to ribbon in or to go in properly and get mixed with the sand and gravel. That is from the dry batch angle.

We have, of course, as I said, the problem of it boiling out here, rather than going into the aggregate properly on a ready-mix truck.

Mr. Sellers: If I may add, your Honor, he referred to a dump truck, which is a different type conveying truck than the ready-mix truck that we have been hearing about the last few days. The

(Testimony of Douglas E. Pinne.)

ready-mix truck receives the aggregate and is the type you have the rotating bin, whereas the dump truck——

Q. Well, will you explain that?

A. The dump truck, of course, as I said, has compartments in it with gates which trip one at a time on the cement mixer or on the grade for our freeways or any kind of a paving job where they have a mixer, and the water, the proper amount of water is added in the mixer on the job. It is hauled to the job in a dry form and the contractor is very desirous of getting that cement mixed into the aggregate and sand suspended within it, rather than on the bottom or top where it would stick to the bottom of the truck with the dampness of the material, or blow away were it on top of the truck.

Q. Let me ask you, Mr. Pinne, with the cement coming [350] down from the side as in the diagram you have drawn, would it not be a fact that much of that cement would be prevented from getting into the discharge by means of the shaft of aggregate and would go around and go up and out on all sides of the collector hopper? A. That's right.

Q. And in the dry mix condition, that would be particularly important, wouldn't it, because you would have both dry aggregate and dry cement, substantially dry aggregate? A. That's right.

Q. Have you, in standing and watching the operation of a side feed plant of this type—well, what can you tell us about what you have observed about the creation of clouds of cement or dust?

(Testimony of Douglas E. Pinnie.)

Mr. Lyon: Your Honor, may I interpose an objection at this point that this is one particular type of plant, and there is no showing that this is the only type of side entry plant that was ever around, so I don't see the pertinency of the difficulty he has with this particular type.

We have had the other witnesses testify there were a number of these types available. I have been rather patient, but I don't see the purpose of it. It seems to me to be immaterial.

The Court: Overruled. You may answer.

Mr. Sellers: Will you read the question, [351] please?

(Question read.)

The Witness: Our problem with this type of plant is applying cement properly with the aggregate so that when it gets in this ready-mix truck, it will not go through there first and get into the ready-mix truck ahead of the aggregate, because when cement does, with the water that is already in there, we encounter trouble with the cement balling in the front of the mix.

The Court: You are still using that kind of batch plant, aren't you?

The Witness: Yes, sir.

The Court: In fact, from your testimony, about half of your batching plants are of that kind?

The Witness: Approximately that.

Q. (By Mr. Sellers): But do you run into the

(Testimony of Douglas E. Pinne.)

problem you have just described in these batching plants?

A. We are continuously overcoming one problem and another by changing and experimentation, and the fact that we have experienced batch operators there that are capable of controlling this valve in such a manner that we do not allow the cement to get in there ahead of the aggregate.

Q. Is it a fact that with this type of operation you find that you have greater cement clouds and dust clouds in the operation of the plant?

A. That today is our biggest problem, the air pollution. [352] We keep pretty busy keeping out of trouble with this type of plant as far as air pollution is concerned. That is our problem.

Q. Do I understand you to say with this type of plant you actually have an air pollution problem which is not present in the Johnson type plant?

A. Definitely.

Q. Thank you very much. Take the stand again, please. Now, you have stated you have less dust problem and air pollution problem with the center flow plant.

What, in your opinion, is the reason for that? Is it because in the central flow plant the cement is protected by the enclosing body, or stream of aggregate, or what is the reason, in your opinion?

A. When the aggregate and the cement are dumped in simultaneously in this type of plant——

Q. Referring to Exhibit 14?

A. Yes. The flow being vertical and the mate-

(Testimony of Douglas E. Pinne.)

rial coming in from the two different sides tend to distribute that cement in a very uniform manner and, consequently, while it is allowed to flow out from that—the aggregate coming from both sides, you naturally don't have the restriction there that you do coming in from the sides of the aggregate.

Q. You mean the restriction of the cement?

A. That's right. [353]

Q. Do you have as a result less formation of air pollutants in this type of plant?

A. Definitely.

Q. That statement is based upon your personal observation of the plants under your control?

A. That's right.

Q. You have mentioned in a type of the side feed plant that you have, with the cement coming in from the side, if you extend the cement duct down far enough to get it into the stream of aggregate, you have a moisture problem present. Is that problem present to the same degree in the type of plant of Johnson, the Johnson type?

A. No, it is not, because the bottom of the cement weigh box in this type on this 14 does not actually reach down into the aggregate.

Q. You have also mentioned balling up. Is it not a fact that today—well, let's put it this way. What do you mean by balling up, Mr. Pinne?

A. The fact that there is aggregate underneath this before this gate is tripped retards the flow of that cement just enough until the aggregate gets started so that the cement does not get in the mixer

(Testimony of Douglas E. Pirnie.)

first. It gets in there with the aggregate and keeps it from collecting in balls in any way, whereas with that type where the pipe is down below and those are turned on simultaneously, the cement gets a head start on [354] the aggregate and gets in there first, and there is always rinse water in a drum of a mixer, 10 or 15 gallons, whatever is required, and as that cement hits that water, it immediately becomes a ball, and it will stay that way until it is discharged from the mixer.

Q. Is that statement based upon your personal observation? A. It is.

Q. I believe you have pointed out to the court that in the filling of the dump trucks there is danger with the side feed type of cement that the cement will all go to one side of the dump truck, rather than to be intimately mixed as is desired.

A. That's right.

Q. That is something that occurs with regularity so that you have to be worried about it, is it?

A. It is just a case that we try to not run any dry batch trucks out of a plant with a side weigh box on it.

Q. However, are you perfectly free to run dry mixtures out of a plant of the Johnson type?

A. We are doing it presently, dry batch.

Q. Is it not also a fact that because of a development in the field of mixer trucks the mixing which takes place in the Johnson plant is particularly desirable, even more than it was years ago, and by that I mean has there not been a change [355] in

(Testimony of Douglas E. Pinne.)

mixer trucks from a top opening type to an end feeding type?

A. Formerly we had a hatch on the side of our drum and the drum was stationary while it was being charged. Consequently the cement and aggregate just automatically got mixed as it was dumped, as it were, in the inside of the mixer that was stationary, so it went into a pile down there and was naturally mixed right inside there, or blended together, may I say, before there was ever any mixing action from the mixer, but those are a thing of the past; and today we apply the sand and aggregate and cement to the rear of the mixer, and it is wound in, as we commonly call it, with the mixer rotating.

Consequently, it is very desirous—this is not my opinion, it is everyone's opinion—it is very desirous to get the equal amount of sand and cement and aggregate starting into that mixer from the minute the gate is open.

Mr. Lyon: Your Honor, may I suggest or move that we strike the portion of the answer which was not based upon his knowledge.

The Court: Denied.

Q. (By Mr. Sellers): Can you make any statement from your experience concerning the time required to effect satisfactory mixing of concrete from a Johnson type plant as compared to concrete from a side feeding type or some other type?

A. Mixing time has a great deal to do with the type of [356] a mix that is charged into the mixer. It is my belief this type of—this detail 14 here will

(Testimony of Douglas E. Pinne.)

properly mix the concrete in a shorter time than a different type of weigh batcher.

Q. Did I understand you to mean that the concrete from this type of plant could be processed more quickly in the mixing truck than concrete from another type of plant?

A. We are required to mix it a certain number of revolutions.

Q. I understand that in the City of Los Angeles we have city time requirements, that the law requires that we have the mixing take place for a certain range of time in the truck, is that correct?

A. That's right.

Q. Do those limitations of time, however, have any application for jobs other than city jobs?

A. We feel that——

The Court: That is not the question, what you feel or "we feel."

The Witness: May I have the question?

The Court: Read the question.

Mr. Sellers: Will you read it, Mr. Reporter?

(Question read.)

The witness: They have approximately the same limitations.

Q. (By Mr. Sellers): You mean for jobs other than city [357] jobs? A. That's right.

Q. How about jobs outside the County of Los Angeles? Are the city time requirements applicable there?

(Testimony of Douglas E. Pinne.)

A. There must be a certain length of time to properly mix that concrete.

Q. But is that required by law, that is what I meant? A. No, it is not.

Q. Then let me reword my first question, because I am afraid I did not make it clear. The City of Los Angeles has certain requirements by law, I understand, for certain city work, but how extensive is the application of those requirements? Do you have jobs in which those time-requirements are not applicable? A. Yes.

Q. I am sorry I coffused you. Please explain that.

A. There is certain grades of concrete that are poured that don't need the strength that some types of jobs do. Consequently, if your job is close to the mixing plant and you can do a good job of applying the cement and aggregate into the mixer, you are able then to discharge it immediately on arrival at the job, rather than standing there and mixing it after you arrive on the job.

Q. Is it a fact that it has been your experience that [358] you can mix in less time where the concrete mix is of the Johnson plant type?

A. I can't answer that in the affirmative, because we don't have any job close enough that I have found any difference.

Q. Would it be your experience, however, that such would be the case?

The Court: When he says he doesn't know, how can he answer?

(Testimony of Douglas E. Pinne.)

Mr. Sellers: I wonder if the witness understood the question. Will you please read the question to the witness, Mr. Reporter?

The Court: Read the previous question.

Mr. Sellers: Yes, the preceding question, too.

(Record read.)

Q. (By Mr. Sellers): Did you understand the first question?

A. Yes. It is only natural if the cement and aggregate is applied in the proper manner in the mixer, you can mix it in less time to the proper consistency.

Q. That is the answer you intended to give to the first question? A. That's right.

Q. Now, I think we have confused the court a little bit, and also me. [359].

The Court: You haven't confused me. Go ahead. Don't worry about me. I am keeping up with you.

Mr. Sellers: Your Honor, believe me, I am only worried about you.

Q. Has it been your experience that where the mix truck is charged from a plant other than the Johnson type plant, that frequently when the mixture is delivered to the job, it may be necessary to be very careful that there is a complete mixture taking place?

A. I would not say frequently.

Q. It doesn't happen very often? A. No.

The Court: Not in your plant?

The Witness: No, sir.

(Testimony of Douglas E. Pfnne.)

Q. (By Mr. Sellers): It is a fact, then, I take it—well, cancel that.

The Court: In all this operation there is a human element, isn't there?

The Witness: Yes, sir.

The Court: If you have good employees, you get good results. If you have poor employees, you get a poor result?

The Witness: Yes, that is for sure, yes, sir.

Mr. Sellers: Your Honor, I wonder if I might read into evidence a part of this book.

The Court: Well, now, we have got this witness on the [360] stand and I would like to get this witness off the stand by noon, if I could. Do you want to read the book so he can listen to it?

Mr. Sellers: I don't think so. That wasn't my purpose, honestly.

The Court: If you have got any other questions, let's proceed with the examination.

Mr. Sellers: My purpose was I hoped we might have him on the stand at the recess so that I could call him again after lunch and conclude at that time.

The Court: I am trying to get rid of the witness. Do you want to keep him until after lunch?

Mr. Sellers: Your honor, Mr. Denny here is my co-counsel from back in Wisconsin and I wonder if I might let him ask certain questions in this particular case.

The Court: As a general rule, only one counsel can inquire of a witness.

Mr. Sellers: I understand that, your Honor, but

(Testimony of Douglas E. Pinne.)

in this particular case we only came in contact with the witness just last night about 10:30, and we have not had adequate time, you might say, to prepare, and I wonder if co-counsel would object?.

Mr. Lyon: Whatever is the court's desire.

The Court: Well, I object. I want to finish this case tomorrow. [361]

Mr. Sellers: So do we.

The Court: We have been going for several days now.

Q. (By Mr. Sellers): In connection with the operation of the plant, Mr. Pinne, does an increase in height increase operating costs?

A. Just initial costs.

Q. Just initial costs? A. Yes.

Q. The subsequent costs are not materially increased? A. That's right.

Q. Turning now to the operation of the discharge here, it has been testified that the aggregate upon dropping out of the aggregate hopper has a very slight drop, rather, a very slight arc.

Do you have an opinion based upon your experience as to the path of flow of the aggregates coming down the side walls of the aggregate hopper, and on their way down to the collecting hopper?

Mr. Lyon: I will object to that, your Honor.

The Court: Sustained. There is no foundation for that sort of an opinion from this witness.

Q. (By Mr. Sellers): Have you observed, Mr. Pinne——

The Court: Now, you are just trying to kill time

(Testimony of Douglas E. Pinne.)

so you can keep the witness on the stand, and if that is so, we will take our recess. [362]

Mr. Sellers: Well, your Honor, I certainly do not want you to think that we are wasting time. However, I would like to have him here at 2:00 o'clock.

The Court: Even though I felt you are wasting time, I wouldn't criticize you particularly for it, because it is something all lawyers do.

Mr. Sellers: Then I feel better.

The Court: If you want to keep control of the witness—

Mr. Sellers: I would appreciate the recess now, your Honor.

The Court: All right.

Mr. Sellers: Thank you very much.

The Court: We will now stand in recess until 2:00 o'clock this afternoon.

Mr. Sellers: Thank you.

(Thereupon a recess was taken to 2:00 o'clock p.m.) [363]

Thursday, March 15, 1956—2:00 P.M.

The Clerk: C. S. Johnson vs. Merle W. Stromberg, et al., further trial.

The Court: Are you ready?

Mr. Lyon: Yes, your Honor.

Mr. Sellers: Just one or two more questions, your Honor.

DOUGLAS E. PINNE

the witness on the stand at the time of the recess, having been heretofore duly sworn, was examined and testified as follows:

Direct Examination
(Continued)

By Mr. Sellers:

Q. Mr. Pinne, approximately how many tons of aggregate and cement are there in a cubic yard of concrete?

A. Just a little less than two tons.

Q. And approximately how many tons of concrete does your company batch in an ordinary working day?

A. Ordinarily about 7,000 yards.

Q. Would it be correct to say that your company each working day lifts approximately 14,000 tons of aggregate and cement into storage bins of its concrete batching plants?

A. Approximately.

Q. You stated that you still have side feed plants in [364] operation in your company today, is that correct? A. Yes, sir.

Q. About how long does a plant last?

A. With the proper care—Will you ask that question again, please?

Q. Yes. About how long does a batching plant last? Does it have a short life or a relatively long life? A. A relatively long life.

Q. About how long? A. 20 years.

(Testimony of Douglas E. Pinne.)

Q. Thank you. Were those side feed plants which you have today in your company and which are still operated plants which were purchased quite some time ago? A. Some of them.

The Court: May I ask a question?

Mr. Sellers: Certainly, your Honor.

The Court: Of these plants in 1948 that were operating and where the cement container was in the center, were those of recent construction or old construction?

The Witness: What year?

The Court: In 1948.

The Witness: In 1948, they were of recent construction, sir.

The Court: Had they been constructed in the previous two or three years? [365]

The Witness: That's right, yes, sir.

Q. (By Mr. Sellers): You have the power today to purchase plants for your company, I believe you said. A. Yes, sir.

Q. And if you were purchasing a plant today, would you purchase a side feed plant or a central feed plant?

Mr. Lyon: I will object to that, your Honor. That is just speculation.

The Court: Overruled. All other things being equal, prices being equal.

Mr. Sellers: All right, prices being equal. Thank you, your Honor.

The Witness: The center feed plant.

(Testimony of Douglas E. Rinne.)

Mr. Sellers: Thank you. Your witness, Mr. Lyon.

Cross-Examination

By Mr. Lyon:

Q. How many different types of batching plants do you have under your control, sir?

A. How many different types?

Q. Makes.

A. Makes? I will have to trust to memory on that, if you don't mind, by the telephone directory. Approximately six.

Q. Do you have any idea how many different types of [336] plants are available on the market at the present time? A. No.

Q. Have you ever used a Noble plant in your operation? A. Yes, sir.

Q. Was the plant you referred to in 1940 which is, I believe you said, one that fed the cement from the center into the aggregate, was that a Noble plant? A. What plant was that?

Q. The plant you referred to on direct examination which was available in 1940. A. Yes.

Q. That was a Noble plant? A. Yes.

Q. When did you first acquire a C. S. Johnson plant of the type in suit?

The Court: You mean Johnson or Johnson type?

Mr. Lyon: Let me rephrase the question.

Q. Showing you now the patent in suit, how many plants of this type made by the C. S. Johnson Company do you have at the present time?

(Testimony of Douglas E. Pihlne.)

A. Four.

Q. Four. How many plants do you have total at the present time? A. 23.

Q. When you testified that you felt that you received [367] certain advantages from the type of plant where the cement was discharged centrally of the aggregate as it flowed into your mixer, did you have only this particular Johnson plant in mind, or do you have other plants which will accomplish that result? A. Are you asking me—

Mr. Lyon: Would you read the question again, please?

The Court: Read the question.

(Question read.)

The Witness: I will have to answer that question in two parts.

Q. (By Mr. Lyon:) Go ahead.

A. I feel that the Johnson plant had its advantages, and I also had in mind the other type plant.

Q. The Noble type plant?

A. That's right.

Q. What is the difference between the Noble type plant and the Johnson type plant?

A. They are completely different, except for the position of the cement.

Q. The position of the cement in the aggregate hopper is identical, is it not?

A. The position is identical.

Q. The only difference, then, between the Noble type plant and the Johnson type plant lies in [368]

(Testimony of Douglas E. Pinne.)

what? A. In the separate weigh batcher.

Q. In other words, the difference is that in the Johnson plant both the aggregate and the cement hoppers are suspended from their own independent scales, while in the Noble type plant a single scale supports both of those?

A. And positioned differently.

Q. How are they positioned differently, sir?

A. Due to the type of weigh box they have to be positioned differently.

Q. I don't understand what you mean by positioned differently. You mean the hoppers inside of each other are different? A. Yes, sir.

Q. How are they different?

A. The cement weigh box in a Noble plant is lower than the cement weigh box in a Johnson plant.

Q. So that the discharge of the cement hopper and the discharge of the aggregate hopper are closer together, is that correct?

A. That's right.

Q. What is the distance between the two?

Mr. Sellers: May I interrupt to ask if your purpose is to establish the anticipation, Mr. Lyon, or merely to establish that the witness knew about this other type of plant and could have [369] purchased it?

There is no evidence whatever that the Noble type plant has a date sufficiently early to be an anticipation.

Mr. Lyon: What I am trying to prove, your

(Testimony of Douglas E. Pinne.)

Honor, is that this man's testimony is not related to this patent in suit, but related to a general type of plant, not this specific plant.

The Court: There is no objection. Go ahead.

Q. (By Mr. Lyon): Now, would you answer the question?

A. May I have the question again?

Mr. Lyon: Will you please read it?

(Question read.)

Q. (By Mr. Lyon): Speaking of the discharges in the Noble type of plant.

Mr. Sellers: I think I will object to that, your Honor.

The Court: Overruled.

The Witness: I cannot answer that in any specific answer. I do know that the Noble plant weigh box hangs much lower than the Johnson weigh box.

Q. Do you get any different result insofar as inter-mixing, pre-shrinkage, or avoidance of balling up between the Johnson plant and the Noble plant?

A. Yes.

Q. What is that difference?

A. The difference is in the fact that the cement is closer to the discharge point.

Q. So, in other words, in order to avoid the difficulties [370] that you were discussing that you got out of this side entry type, the critical thing there is to get those two discharges in the appropriate relationship with one another?

A. That's right.

(Testimony of Douglas E. Pinne.)

Q. If your plant does not have the discharges related within a given range, then you don't get these results, is that correct?

A. That's right.

Q. Now, in the operation of a batching plant, the operator can, if he so desires, put all of the aggregate into your mix truck first and then add all the cement, is that correct? Any type of plant?

A. I don't follow you.

Q. Let's say we have got a bin with cement in it and a bin with aggregate in it. If the operator desires, he can open the discharge for the aggregate and dump all of that into the mixer without touching the cement? A. Not every plant.

Q. Not every plant? A. No.

Q. What type plant can't do that?

A. Any plant that is interlocked, it is not possible.

Q. It is practice to interlock these plants?

A. positively.

Q. So the contractor would designate that he wanted the [371] hoppers interlocked. I believe your answer was that the State of California requires that. A. Right.

Q. If the mixer truck is overloaded by the operator of the batching apparatus, what is the result?

A. What is the result?

Q. Yes.

A. Dump the load and bring it back and give the proper load.

Q. What is the result on the concrete mixed?

(Testimony of Douglas E. Pinne.)

It is no good? A. That's right.

Q. So that if the operator happened to put an extra half yard or extra yard of cement into the mixer, the material is substantially wasted?

A. That's right.

Q. When you get complaints, as you undoubtedly do, from contractors, do you find that that is one of the causes of the complaints that your concrete was not adequately mixed?

A. In the past we have. We have tried to correct that in recent years.

Q. That, however, is a problem under the control of the truck mixer or of the batching operator?

A. Under the control of the batch operator, and the plant itself. [372]

Q. Referring to this little diagram you have sketched on the blackboard, is that the only kind of side operated plant you have ever had?

A. The only kind?

Q. Yes. A. The only type.

Q. That you have had any association with?

A. Yes.

Q. Have you ever had any association with a plant wherein the discharge from the cement hopper pierces the aggregate hopper and spills down the inside? A. Yes.

Q. Is that what you would call one of the centrally discharged or concentric discharge plants?

A. I wouldn't call it that, no.

Q. Do you obtain any different mixing with one that operates in that way?

(Testimony of Douglas F. Pinne.)

A. A better mix than the other kind.

Q. A better mix than this kind? A. Yes.

Q. How does it compare with the type of plant we are talking about in the Johnson patent?

A. It comes as close to comparing with this type, if you are able to get your discharge in the proper position down here in that type. [373]

Q. It would get the identical result, would it?

A. I wouldn't say that, no.

Q. Well, if you get your discharge in the proper point, you will get as closely as possible a pre-mix, a pre-shrinkage?

A. No. It is an entirely different type discharge then, so you have force behind it. You are screwing it out there rather than dropping it of its own free will.

Q. You testified that in the operation of the Johnson type plant you had less of a dust problem than you do with this side operated plant, is that correct? A. That's right.

Q. In the Noble type plant, do you have the same curing of the dust problem that you have in the Johnson plant?

A. We have a little more dust problem in the Noble plant.

Q. In all of these plants you do have dust, do you not? A. A slight amount.

Mr. Lyon: I think that's all. Your witness, Mr. Sellers.

Mr. Sellers: Just one question.

(Testimony of Douglas E. Pinne.)

Redirect Examination

By Mr. Sellers:

Q. I believe it was stated on cross-examination that in [374] the side feed type of plant, Mr. Pinne, that you might improve its operation if you extended the feed for the cement way down to the bottom here in an extended line so that it almost approximated the line of passage of the aggregate?

A. That is what we attempted to do.

Q. If you do though, is it a fact or is it not a fact that you tend to have difficulty with the moisture through clogging? A. That's right.

Mr. Sellers: That's all.

The Court: May this witness be excused?

Mr. Sellers: Yes.

The Court: He may be excused.

Mr. Sellers: May he leave, your Honor?

The Court: Yes. He is excused.

Mr. Sellers: Thank you.

(Witness excused.)

Mr. Sellers: I believe, your Honor, that in just a minute we will rest our prima facie.

We do rest, your Honor, the prima facie case.

The Court: Call your first witness.

Mr. Lyon: Mr Wisniski, will you take the stand, please? [375]

WILLIAM H. WISNISKI

called as a witness by and on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

The Clerk: You may be seated, and state your name.

The Witness: William H. Wisniski.

The Clerk: Will you spell it, please?

The Witness: W-i-s-n-i-s-k-i.

Direct Examination

By Mr. Lyon:

Q. What is your present occupation, Mr. Wisniski?

A. Engineer for the W. E. Kier Construction Company.

Q. That is a Los Angeles concern?

A. Yes, sir, El Segundo.

Q. Would you state your education, Mr. Wisniski?

A. I have a B.S. in chemical engineering from Washington State College.

Q. When did you receive that degree, sir?

A. 1935.

Q. Upon graduation from Washington State College, where did you go to work?

A. I went to the work for the Bureau of Reclamation at Coulee Dam, Washington.

Q. That is the federal government, Department of Commerce? [376]

(Testimony of William H. Wisniski.)

A. Federal government, Department of the Interior.

Q. Department of the Interior, Bureau of Reclamation? A. Yes.

Q. That was at the Grand Coulee Dam?

A. Yes, sir.

Q. What was your job there?

A. Initially I worked as a civil engineer on surveys for a small period and the rest of the time was as a concrete engineer.

Q. What are the duties of a concrete engineer, sir?

A. The concrete engineer at Coulee Dam, the concrete control department, in which I worked, had the responsibility of inspection of all the concrete that went into Grand Coulee Dam and the design of this concrete, the inspection of all the ingredients that went into the concrete, and, oh, also field work in aggregate investigations.

Q. Did you have any connection with the mechanical devices by which the concrete was mixed and prepared?

A. Yes. I spent considerable periods in the actual plants at Grand Coulee Dam during that period and also in the laboratory.

Q. In the laboratory work you would determine what kind of a mix you desired for a specific job on the dam?

A. Yes, sir. We had numerous different mixes that went [377] into the dam proper. We had to design it for maximum economy and strength, quality

(Testimony of William H. Wisniski.)

in all respects, and we had considerable work in, oh, in concrete control you try to maintain the quality and uniformity of the concrete through various tests at all times. It is checked continuously.

Q. Do I understand it correctly, then, that in building a dam or a structure of that size, you use one different type of mix of concrete under some situations and a different type in a different situation?

A. That's right. In a dam they use a lot of what you call mass concrete or concrete that goes in the bulk of the structure where it is not restricted by reinforcing steel or small forms, and in that place we use what you call six-inch maximum aggregate or cobbles, and that went into six through on its smallest dimensions, and at places where you had reinforcing steel or forms of restricted nature, you used the smaller-size rock, all the way down to 3/4 inch maximum.

In some, oh, minor cases, where it might go down to 3/8 inch maximum, and then you go down to grout or sand and cement and water mixture alone.

Q. During your stay at the Grand Coulee Dam, what type of batching apparatus was used to prepare the concrete?

A. It was the Johnson—they had two Johnson plants for the bulk of the construction. They are large plants of, oh, the last plant was a dual 4-4 yard mixer plants together. [378]

Q. The design of those plants is different from

(Testimony of William H. Wisniski.)

the design of the patent in suit here which I will show you in just a moment, is that correct?

A. It is much different. The big plants have a separate batcher for each ingredient. For each size of gravel, for instance, there is a separate batcher. At Grand Coulee, for instance, as in the case of many of the larger dams, we had one size of gravel, 3 to 6 inch, that was the larger size, and another batcher for 3 inch to inch and a half, and another batcher for inch and a half to ¾, one for sand, one for cement, and then a water batcher.

Q. How long were you with the Federal Bureau of Reclamation on this Grand Coulee?

A. I worked there from July, 1935, until October, 1941, at which time I went into the armed forces during the war.

Q. What was your job in the armed forces during the war?

A. I had a number of positions. The final and the highest position I had was commander of an engineer combat battalion.

Q. During which time you handled some of the cement construction work that the Army was doing?

A. Yes. We had all miscellaneous field construction during the war in this country and overseas.

Q. After you left the service, where did you go? [379]

A. I went back to Grand Coulee Dam for a short time, about three months, and then into the——

Q. You were again with the Federal Bureau of Reclamation?

(Testimony of William H. Wisniski.)

A. Yes, back to the Federal Bureau of Reclamation. I was just on leave during the war.

Q. After you left Grand Coulee Dam, what was your next work?

A. I was still with the Bureau of Reclamation. I went into the Columbia Basin, which is adjacent to or a part of this Coulee Dam or Columbia Basin Project, the irrigation end of it. I spent a year at Pasco, Washington, on the construction of a pumping plant in the lateral system for that project there, and then I spent a year at Ephrata, Washington. That is the headquarters of the Columbia Basin Project.

Q. For the Federal Bureau of Reclamation?

A. For the Federal Bureau of Reclamation.

Q. During those two years, I think that is 1947 and 1948, did you have contact with batching equipment?

A. Yes, considerable experience at Pasco, and on this one project itself we had two different contractors with separate batching plants. I was concrete engineer on that project, and we supervised, controlled the concrete for that entire subdivision.

At Ephrata, I was the assistant concrete engineer [380] for the whole area which comprised, oh, the Columbia Basin Project itself involved the irrigation of over a million acres of land, so it extends for about 150 miles north and south, and there was numerous contracts going on in this area. There were dams under construction, tunnels, siphons, pumping plants.

(Testimony of William H. Wisniski.)

Q. In all of this work you were closely associated with cement batching and the batching apparatus, is that correct? A. Yes, sir.

Q. Was it your job to supervise this equipment and suggest when they were being improperly used?

A. Not so much the actual supervision as it was the inspection. On all the government work before a contractor begins operations, he must have approval of his equipment before he can operate it and produce concrete for a certain government job. One of my duties in all of this work was to check over the plants and approve or disapprove them, and show them where they could be improved and make them conform to our minimum requirements, and during the actual operation of this equipment, if there was anything faulty in the manner in which they worked, we forced them to change it so they would get desirable results.

Q. So you were constantly analyzing the output of the batching equipment?

A. Yes, in every manner. I constantly, either myself [381] or supervised test work or the observations necessary to get the specification concrete.

Q. Observing these plants actually in operation?

A. Yes, sir.

Q. To see that they were being run correctly?

A. Yes.

Q. After you left this post with the federal bureau, where did you go next?

A. I was still with the Bureau of Reclamation. I went to Canyon Ferry Dam in Montana. I was con-

(Testimony of William H. Wisniski.)

crete engineer on this dam. It is a dam on the Missouri River near Helena, Montana. I spent approximately five years on this project as concrete engineer.

Q. During that time your duties were similar to those you have outlined?

A. Similar to what I have mentioned. I was concrete control engineer, had charge of concrete control section which had full authority over the inspection and control of the concrete for the dam.

Q. Now, in August, 1953, you left the Bureau of Reclamation, is that correct?

A. I left the Bureau of Reclamation in August, 1953, and went to work for a joint venture of Kier Construction Company, who I am now with, and Daniel, Mann, Johnson & Mendenhall, architects and engineers of Los Angeles, who had a [382] contract with the Indian government for consulting and preparing the master construction plan for Rihand Dam.

Q. Did this particular job require you to leave the country?

A. Yes. We spent approximately eight months in India.

Q. Teaching the Indians how to make one of these dams, is that correct?

A. Yes, sir. Our job involved preparing the master construction plan, which was the design of the entire construction scheme for the building of this dam, the design of the major equipment, layout of numerous items, such as plants, cable ways,

(Testimony of William H. Wisniski.)

bridges, town sites, roads, everything imaginable, including health and sanitation, so it was quite complete and we were available at all times to the Indian government engineers on a consulting basis, and I was consulted, or they consulted us on very many items.

Q. Would they also consult you regarding concrete problems?

A. Yes. That was one of my big jobs, by no means all of it, but I had full responsibility for answering all questions on concrete and the concrete plant in general, the placement and manufacture, both.

Q. Now, upon your return from India, what was your next occupation?

A. I went to work for the Colorado Pre-Mix Concrete [383] Company, Denver, Colorado, with the main responsibility of promoting, developing and installing moisture meters that test the moisture content of concrete aggregates.

Q. Would those meters be placed on a batching plant?

A. Yes. They are designed largely for use in the sand batcher, electrodes actually installed in the sand batcher, and also can be installed in a gravel, especially the finer gravel batcher, and they are used to determine the moisture content of particularly the sand.

Q. What did you do with the information after you determined what moisture was in the sand? I mean what does that control?

(Testimony of William H. Wisniski.)

A. The moisture in the sand is a very critical item in concrete manufacture, because it varies so much. There are some sands will hold 12 or more per cent moisture, and that same sand can dry out to maybe 2 per cent or thereabouts, any percentage in between, and you take 10 per cent, say it is 10 per cent sand moisture of a batch of sand, say it is 1,000 pounds of sand, that is 100 pounds of water, and the water that is in the sand will greatly influence the consistency of the concrete or how fluid it is, and thereby, also, influence the critical item of water-cement ratio or the ratio of the water in relation to the cement, which has great bearing on the strength and durability of the same concrete.

Q. So that these materials would indicate the amount of [384] water present in the aggregate and from that you would deduce that you needed less water or more water in the batch as it was discharged?

A. Well, if you visualize a typical situation, the operator is batching material and he sees the sand moisture content jump from, say, 5 per cent to 10 per cent, and say he has got a thousand pound batch of sand, so he knows there is 50 pounds more water being introduced into this batch by the moisture in the sand, and so from his added water he has to cut 50 pounds of water and has to add a corresponding amount of sand.

Q. The most critical factor, then, in batching concrete correctly is to control the amount of water

(Testimony of William H. Wisniski.)

that is put in with respect to the amount of sand, is that correct?

A. That is very critical. That water-cement ratio is generally a specified figure, and any time that you exceed your specified figure, your concrete strength is reduced accordingly.

Q. And the apparatus by which the cement is mixed or batched has no bearing on that whatsoever. If the waterer doesn't get the water-cement ratio correct, he is not going to get a correct batch?

A. It is generally to do with what you actually put in the batch. You can't mix it out in any manner if you introduce your ingredients in the wrong proportions. If you add [385] too much water, you have got it in there and you have to mix it up.

Q. At this time did you have under your supervision or control or observation any of the plants of the type illustrated in Johnson patent No. 2,138,172?

A. Yes. During this time I toured the United States. I made installations in plants all over the United States and I observed many more plants. One part of my duties in this job in connection with my work was to try to promote concrete quality and to more or less operate as a consultant with everybody that we possibly could deal with in trying to promote our product, and before we could really promote our moisture meter, we many times had to teach the basic fundamentals of concrete manufacture and control to many people.

The concrete industry in general in the United

(Testimony of William H. Wisniski.)

States is not in too good a state as far as quality of concrete is concerned.

Q. After you left this job, what was your next occupation?

A. I went to work as an engineer for the Kansas City Quarries Company in Kansas City, Missouri.

Q. What were your duties there?

A. I was general manager for the plant. Their main business was concrete, transit-mix concrete, and they also had precasting operations and did their own plant construction [386] and had their own quarries and so forth.

Q. When you mention transit-mix concrete business, by that do you mean that they would have a batching apparatus and people would come in and would have mixers, and you would take the cement out and sell it to them at a particular job?

A. They had two types. They had what we call dry and wet plants. They had a couple of premix plants where they would batch the concrete and actually mix it up and deliver from the mixer into a transit mixer, more or less as an agitator in this case. It would transport it to the job and deposit it where necessary.

They also had plants they called dry plants where the material is batched unmixed directly into the transit-mix trucks and the truck does all the mixing in that case, and conveying to the job.

Q. Did you use any of the Johnson type plants shown to you in that operation?

A. Yes, they had that plant.

(Testimony of William H. Wisniski.)

Q. After you left the Kansas City outfit, you came to your present occupation, is that correct?

A. Yes.

Q. What do your duties at the present time involve?

A. I am the general engineer for the W. E. Kier Construction Company. It involves a variety of work, all aspects of engineering. We have a lot—well, it will depend largely [387] on the job actually going on at the time. At present we have a dam at Blythe, California, on the Colorado River which we are just in the preparatory stages of construction on.

We have a job at Compton on storm sewers and a job at Santa Ana.

Q. Your primary occupation, however, is still dealing with concrete?

A. I have full responsibility of that item, plus other items like, oh, for the Blythe job I will be responsible for the selection of the proper plant to do the job. I will be responsible for the materials and the plants necessary to produce the aggregate, and also during the operations will be responsible that those plants are producing in the manner they are supposed to.

The Court: When did you say you started to work at the Grand Coulee Dam first?

The Witness: 1935, July, 1935.

Q. (By Mr. Lyon): When aggregate, sand and cement are placed in a mixing truck, what order

(Testimony of William H. Wisniski.)

must they be placed in to avoid balling up of the cement?

A. The big thing you strive for in putting concrete in a mixer, regardless of the type, is to try to, oh, avoid cement coming in contact, and the sand, also, for that matter, coming into contact with the bare metal of the mixer alone, because it is apt to, oh, maybe stick to the blades, especially [388] the back end or the end that is discharging into, and you try to distribute the time the ingredients go in so that there is no concentration of any one item at one end of the mixer or the other. For instance, you don't want all the sand in the back end of the mixer and all the gravel and cement in the other end of the mixer, and the water all at one end, and so forth. You time the entry of these ingredients so that they are more or less distributed through the mixer as evenly as possible.

Q. Now, it is possible to make satisfactory concrete, is it not, by putting first the rock from one hopper into the mixer and going on to the next and putting in sand and going on to the third and putting in cement, and so forth?

A. I might say that actually in the United States there is quite a variety of ways in which concrete people operate. I will say that I have had this experience in traveling the entire United States where I got quite a bird's eye view of what went on.

There is operations, for instance, where they actually do what you just described. They will have hoppers actually separated far enough that they

(Testimony of William H Wisniski.)

will have to run a mixer along a string of hoppers and discharge each one of the ingredients separately, and particulary with cement, for instance, there is a number of towns, take our nation's capital, Washington, D. C., there it seems to be that the bulk of the [389] concrete is mixed in this manner.

Another place where the entire town seemed to be standard with it is Pittsburgh, Pennsylvania, where they feel they have got so far to go with their concrete that they will charge their sand and the rock from their batching plant into a mixer, and then into a dead mixer they will charge the cement dry on top of the sand and the gravel, and it is laying there in a layer. Then they will go out to their job, or shortly before they get there they will start mixing and add their water, so the cement is added entirely different, not together at all. It is just laying on top of the rest of the material.

Q. You do get a satisfactory concrete by that method?

A. Well, Washington, D. C., claims it has got good concrete and it has pretty good inspection in many cases.

In Pittsburgh, Pennsylvania, the state is fairly tight in its specifications.

Q. How do their specifications compare with the specifications, say of the City of Los Angeles?

A. Oh, I would say very similar. I haven't studied them all in too great detail. I can't really say.

Q. So that the only thing you have lost by doing

(Testimony of William H. Wisniski.)

it this way. I take it, then, is the time of running the mixer?

Mr. Sellers: I object to that as a very leading question, your Honor. [390]

The Court: Overruled.

Q. (By Mr. Lyon): Will you answer, please?

A. Well, with any mixer, very often, the mixing time is of consequence because the more that you turn your drum over, the more you wear that mixer out, for one thing; and the more energy you take to mix the concrete. In most cases in-transit mix, time itself isn't of too much essence, because the mixer has to travel to the job, and many times he may be traveling over a period of up to a half hour or so, and he has got plenty of time to mix that while he is traveling prior to the time he gets to the job, but you get a big job, like a dam, for instance, like the Grand Coulee, for instance, and the timing on these mixers was down to practically split seconds. They tried to squeeze every ounce of concrete they could out of the plant most times because they were the bottleneck in the concrete placement operation. They could take the concrete faster than the plant could put it out, so mixing time was of considerable essence at that time.

Q. Now, taking a second step from the individual stops of the hopper that puts the aggregate in the hopper, that puts the sand in the hopper, that puts the cement in the hopper, if you bring those three into sufficiently close relationship, stick the gathering hopper underneath, and funnel all of that

(Testimony of William H. Wisniski.)

in your mixer, do you obtain any different result than you would otherwise? [391]

A. Not measurable that I have been able to measure. I have worked with both plants, oh, like the Johnson plant, for instance, where you have individual batchers, generally in a circle around the gathering hopper, and they all come down to a common point and funnel into a mixer, in this type here in question, and in a number of other plants have made tests on mixer efficiency, and I could never measure any particular difference.

The big item that really made a difference was the way the charging was timed. That was of great consequence.

Q. But the mere physical location of the various ingredients with respect to one another as they go into a gathering hopper, does it perform any real difference?

A. Not that I could measure. There are other factors that may come in there like stuff hanging on the chute, for instance, or, like I mentioned before, of putting down cement in advance or late all by itself, and hanging up on the blades, or the back end of the mixer.

Q. You do, in your gathering hopper, when you put converging streams, get a mixing action, don't you?

A. I wouldn't say there was too much of a mixing action. I don't know exactly what you mean. You get a mixing action when you have got a——

(Testimony of William H. Wisniski.)

Q. You have got to have something moving sideways, don't you? Now, if you take this device shown in the Robb [392] patent, 1,750,244, there are the three hoppers, and there is a gathering hopper, and as those streams dump into that gathering hopper, you do get a mixing action, do you not?

A. Well, to a very minor extent, I would say. To get a mixing, you have got to have a folding and a refolding, and an actual churning of material. Just to bring material adjacent, to say that they were mixed—well, in this particular picture, you have got three streams of material. Well, you would visualize them coming down side by side with another one coming down the middle, and how much opportunity there is for the actual material to fold over itself, and how many times it would fold is, oh, I would say it is pretty hard to visualize what mixing action you get. It is very little. Maybe with two or three streams together, you get a possible interlinking right in the exact plane of contact, but I wouldn't say there was any general mixing in that.

Q. So that that mixing, whatever it is, that takes place is of no consequence in running your truck mixer, and so forth?

A. Not that I have been able to detect.

Q. Well, let's take these three hoppers in this Robb patent and bring them closer together so that the three streams will intersect as they discharge. Will you get any appreciable amount of mixing that will make any difference in the formation of concrete out of that action? [393]

(Testimony of William H. Wisniski.)

A. I can't see where that bringing them together would make any difference.

Q. Even if they do happen to hit each other or intersect, or what have you, on the way down?

A. There again you have got the same case I described before.

Q. Their mixing action there is no different than the mixing action that would take place in the gathering hopper if they were further apart?

A. No. They would meet at a common point. They have to meet there.

Q. And they have to reduce the circumference or diameter of the shaft and go down the smaller shaft, and you would have to get your mixing at that point?

A. They would have to have some way that they would fold and refold before you would get any real mixing in any case.

Q. I agree with you that you can't take any of the so-called mix out at that point and have it concrete. It has got to be further mixed. My question is directed to whether this partial mixing, or what have you, that takes place at that point, is that of any consequence in the making of concrete?

A. About the only thing that you could probably accomplish there, that you try to accomplish, is to so co-ordinate the flow of that cement so that you wouldn't get your cem [394] falling on either the gathering hopper or into the mixer itself by itself.

Q. In other words, that disposition permits you to start your aggregate flow first, put your cement

(Testimony of William H. Wisniski.)

so it will flow on top of the aggregate constantly and keep it out of contact with the metal of your gathering hopper or of your mixing truck?

A. As long as you don't let the cement down alone.

Q. Too fast.

A. Too fast or too late. It would be the same condition.

The Court: Too late?

The Witness: You wouldn't want the cement to go in by itself after all the other ingredients.

The Court: But, however, how about putting the cement on top?

The Witness: Well, that situation that I described isn't the best practice. They do get some building up of cement on the blades, I think, more than you would if you partially fed that cement in with the rest of the ingredients.

The best mixer efficiency, I think, is to, I am sure, is to try to distribute your materials and time them so that they will go into the mixer together.

Q. (By Mr. Lyon): In other words, that will render the operation of the mixing truck more efficient, is that correct? [395] I mean if you put them in in the ideal sequence, you might avoid the building up of cement on your blades so that your mixer will do a more efficient job?

A. Yes, and probably with a better dispersion of materials, you probably wouldn't have to mix as long.

Q. In your experience with Johnson type plants,

(Testimony of William H. Wisniski.)

can you state whether or not there is any mixing of the concrete and the aggregate of an appreciable nature at the discharge of the aggregate hopper?

A. I wouldn't say that it is appreciable. If there is any mixing there, that is purely a hypothetical case. It would be very difficult to measure any mixing there. You can't see it to try to visualize it, what the situation is. You can't visualize any appreciable amount of mixing taking place there, because, as I described before, you don't get that folding or refolding or actual churning of any material there to any great extent.

Q. So any discussion on any mixing at this point is pure speculation, in your opinion?

A. I would say it is.

Q. Do you know any way of testing that or finding out whether or not there is any mixing at that point?

A. One way you could test out this theory of whether there is any appreciable amount of mixing or shrinkage there is to set up two plants, one of this type and another of another [396] type, side by side, for instance, and have them charge, say a transit-mixer or a mixer—this same mixer, and with the same number of mixer revolutions, and then make mixer efficiency tests of both plants to see whether you had any improvement in your mixing condition.

Q. Do you believe that this operation I showed you here in this Robb patent would produce as much

(Testimony of William H. Wisniski.)

preinixing or preshrinkage of this cement as this plant would, or can you tell?

A. Well, without running that elaborate experiment with two plants with the same mixer and same controlled mixing time, I wouldn't say.

I have had experience with both plants and made mixer efficiency tests of both plants and produced satisfactory concrete in those plants, various kinds of plants, and as far as I can see there is no appreciable difference in any of them.

Q. In other words, in the absence of tests establishing results one way or the other, you don't believe it is possible to ascertain from looking at those drawings whether or not there is any appreciable amount of pre-mixing taking place in either one of them?

A. I can't say by just looking at the prints that I could say there was any appreciable amount of pre-mixing.

Q. There would have to be an actual physical test made to establish that as a fact before you would be willing to accept [397] that?

A. That is correct. Take on actual specified mixing time in revolutions of mixers, and so forth, which many specifications specify. I don't recall ever seeing any place where they implied that the type of plant made any difference in the number of revolutions of a mixer that it took to produce what they termed as satisfactory concrete.

Q. In other words, the specifications as written up either by the government or by contractors al-

(Testimony of William H. Wisniski.)

ways call for the batch to be mixed a certain number of revolutions in the mixer before it was accepted? A. Yes.

Q. Irrespective of the plant it came out of.

A. They would have certain restrictions on the plant. The scales had to weigh to certain tolerances, and the water had to be batched with tolerances, and probably in some certain manner that they specify.

The Court: Counsel, can I ask this witness a question?

Mr. Lyon: Certainly, your Honor.

The Court: You are familiar with the Johnson plant, aren't you?

The Witness: Yes, sir.

The Court: When did you first become acquainted with it?

The Witness: Well, the first Johnson plant, the big Johnson plant—— [398]

The Court: Johnson type.

Mr. Lyon: This type right here, Mr. Wisniski.

The Witness: Well, naturally concrete is accepted more or less as my work through my whole life, and from the time I started at Coulee Dam, I visited every possible plant that I could in practically every city that I was around or any time I had the opportunity, I would visit various plants.

The Court: I know, but you started on the Grand Coulee Dam in 1935?

The Witness: Yes.

(Testimony of William H. Wisniski.)

The Court: Was there any of the Johnson type plants used on the Grand Coulee?

The Witness: Not this type, just the big plant.

The Court: When did you first come in contact with this type?

The Witness: It is probably—let's see. It was after the war, I think, before I really was in contact with one of the plants.

The Court: All right. Let's get this straight now. After the war, you say. That doesn't mean anything. What is the year?

The Witness: Probably 1946.

The Court: All right.

Q. (By Mr. Lyon): In the building of a batching plant, is there any appreciable result obtained by virtue of separately [399] weighing the aggregate and the cement?

A. As far as the mixing action is concerned, there is no great advantage in weighing them separate. That has nothing to do with the mixing action actually, but it has for accuracy of weighing. Cement, naturally, is more costly than the other ingredients, and you try to weigh it with as great accuracy as you can. Naturally, you want to supply the minimum amount of cement without question, and you don't want to overload, so you try to weigh it to the greatest accuracy possible. If you weigh it along with the other ingredients on the same scale, you get a much greater weight that you have to weigh and the graduations of your scale are much further apart, so you can't possibly weigh to

(Testimony of William H. Wisniski.)

nearly the accuracy that you can by separating the cement in a special weighing mechanism and weighing it by itself.

The Court: When did you first come in contact with a mechanism whereby the cement was weighed separately?

The Witness: Well, that was 1935, was the first time there.

The Court: In 1935?

The Witness: Yes, sir, on Grand Coulee Dam.

The Court: You weighed the cement separately?

The Witness: Yes, sir. Each and every ingredient was weighed separately.

The Court: All right. [400]

Q. (By Mr. Lyon): Do you obtain any result by weighing the cement in a hopper by one set of scales within a second hopper supported on a second set of scales which contains the aggregate? Do you get any more accurate weighing?

The Court: Let's have that question.

Mr. Lyon: Would you read the question, please?

(Question read.)

Mr. Sellers: I would like to object to that, your Honor. I don't believe the record shows he has ever operated a plant of that type and ever weighed them, to know.

The Court: Well, let's find out. Have you ever operated a plant like that?

The Witness: I actually have. I have never

(Testimony of William H. Wisniski.)

worked as an operator. I generally have had a job of much higher standing than that.

The Court: Have you observed and watched the weighing?

The Witness: Oh, yes, sir.

The Court: When did you first run into that sort of a procedure?

The Witness: Of what, sir?

The Court: Of weighing the cement inside of a hopper in which the aggregates were weighed.

The Witness: You mean similar to this picture here?

The Court: Yes.

The Witness: That was probably 1947. [401]

The Court: 1947. All right.

Q. (By Mr. Lyon): That was part of your job in those days to inspect plants of this type, and see that they were operated correctly, is that right?

A. Yes, and many times we would actually operate them. As an inspector, I have put in many hours actually operating the plants. I actually operated this plant, not as an operator, but I pinch hit as an operator on rare instances in Kansas City. I know that.

The Court: All right. Now you can answer the question.

Mr. Lyon: Could we read the question again so that the witness will know what it is?

The Court: Could you read Mr. Lyon's question again?

(Question re-read.)

(Testimony of William H. Wisniski.)

The Witness: Well, as I interpret that question, you have reference just to the position of the actual weighing apparatus. Well, regardless of where you put that weighing apparatus, you could have it in the middle or you could have it a half block away, and it is entirely dependent on the accuracy of the equipment itself in the nature of its construction, what accuracy in weighing you get.

Q. (By Mr. Lyon): It is still going to do no more than just weigh the cement and weigh the aggregate, isn't that correct, whether one is within the other or they are a block and a half apart? [402]

A. They are separated, and where the position is isn't going to influence the accuracy in any manner.

Q. So the method of weighing, whether done on a single scale or on a double scale, has nothing to do with the nature of the discharge? Do you understand my question?

In other words, if we use a single scale to weigh both the aggregate hopper and the cement hopper, we don't get any different result insofar as the discharge from the two is concerned than we do if we have them each on separate scales, do we?

A. The discharge is something else. The discharge really has no relation to the weighing. You can discharge in a different manner.

Q. The discharges of the cement hopper could be positioned say to one side of the aggregate hopper, rather than in the center. Would you then ob-

(Testimony of William H. Wisniski.)

tain a different flow than you would if it were centrally located?

A. Oh, I was trying to visualize what you are leading up to. You have it to one side rather than in the middle?

Q. In the center. Just move the cement hopper over to the side and let it discharge over to the side, rather than in the center of the aggregate hopper. Is there any change in the result?

A. The mixing efficiency of the mixer?

Q. Any difference in the discharge of the batching apparatus. [403]

A. Well, there is plants of this description I think you described, and actually, you mean the feeding of that cement into the discharge stream of the other materials?

Q. Yes.

A. It actually feeds in in a satisfactory manner, regardless of whether it is in the side or in the center.

The Court: It doesn't make any difference, in your opinion, whether it is in the center or to one side?

The Witness: No, sir.

Q. (By Mr. Lyon): Does it make any difference whether or not the discharge of the cement hopper is positioned above the discharge of the aggregate hopper? Do you get any different result by virtue of that, or could they be in the same plane? Just slip this down and put it in the same place as

(Testimony of William H. Wisniski.)

that discharge and let them both go. Is it going to make any difference?

A. Would you repeat that?

(Question read.)

The Witness: A lot of that has to do with the nature of the operation itself, what plane you have there, whether you can keep that hopper free by having that gate on the same plane.

Q. (By Mr. Lyon): In other words, it might become clogged by the aggregate? [404]

A. If this sort of plant, if you lower that too far, your aggregate is going to bear up against your batcher and, therefore, the weight of this cement will be influenced so you can't lower it below a certain point or else you will bind the batcher, so you have to keep it up so you won't bind.

The Court: Mr. Lyon, I notice it is 3:00 o'clock. We will take our afternoon recess. We will now recess until 15 minutes after 3:00.

(Recess.)

The Court: You may proceed.

Q. (By Mr. Lyon): Mr. Wisniski, what are the two major causes of failure of a concrete batch?

A. Oh, by that I would say that you mean the lack of mixing——

Q. Properly.

A. Properly mixing. One thing I found, a very common cause throughout the country, is overloading of batches. That is one very common item.

(Testimony of William H. Wisniski.)

Q. That means that the operator of the batching plant puts too much into the mixing?

A. A Mixer will not mix efficiently if it is overloaded. It is designed for a certain amount and if that amount is exceeded to any great extent, it will not mix properly.

Q. So that when you have been called out to figure out why certain concrete was not being prepared correctly, one of [405] the frequent difficulties you found was that they were overloading their batch in the mixer?

A. Yes, that is very common, because with the transit-mix industry, for instance, they can deliver, say, a yard in excess of the capacity of the mixer just as cheaply as they can the batch the mixer is designed for, so they very commonly overload.

Q. What would be the second cause, now?

A. Oh, another thing that contributes to a great extent is the timing of the sequences of these various ingredients going into a mixer. Oh, I might describe the situation at Coulee Dam, and also other, especially government projects. We had to time the ingredient discharges to split seconds, so that we would have them in the mixer in just exactly the right sequence. We actually used stop watches on the gates that they opened at exact intervals and also pinched down the gates so that they emptied in certain times at certain rates, and that was very critical.

I described before that we actually tried to cut down our mixing time to the least possible amount

(Testimony of William H. Wisniski.)

on that job, because time was particularly of an essence on that job, and they could take the concrete faster than the mixing plant could mix it, so we actually tried to get the operation as efficient as possible, and discharges were timed to, as I said, split seconds. [406]

Q. So no matter what type of batching equipment you are going to run, you can get a good batch from any kind of equipment. If you have a good operator, you can get a good batch of concrete, and if you have a bad operator, you will get a bad batch, is that correct?

A. That is very true, and also the technicians, or whoever he has setting the equipment and controlling it. With any kind of a plant, the best of plants with a poor operator and the equipment not timed properly, you can get lousy concrete or poorly mixed concrete. In any plant, it is very important to time the discharges correctly.

Q. Is that particularly true of the introduction of water into the mixer?

A. Water is very critical. That is one of the critical items in the mixing. You generally load the batch with water. You start the water before everything else goes down, and maybe some of the coarse rock with the water, and that water is introduced through the whole period of batching while all the other ingredients are passing into the mixer, and you actually have a small amount of water trailing at the very end, so that water is introduced at

(Testimony of William H. Wisniski.)

a very careful rate to that batch to give you the maximum mixing efficiency.

Mr. Lyon: I believe that's all I have. Your witness, Mr. Sellers. [407]

Cross-Examination

By Mr. Sellers:

Q. Mr. Wisniski, will you tell us something about the flow characteristics of cement? How does it flow? Does it flow like water or what are its characteristics?

A. Well, cement, you generally—it is not exactly free flowing. It flows, oh, when you open a cement batcher, if that material is just freshly introduced, it will flow out quite readily and, oh, empty the batcher completely, but many times if, say, it stays in the batcher for a considerable period, say half an hour or more, you may have to have a vibrator on that batcher to kick it down. Many times in a bin itself, you have to introduce air into that bin to make it flow properly.

Q. Is it desirable to have the flow path of the cement as short as possible, all other things being equal?

A. Oh, the big item in having the path short is that you don't have as many places for it to hang up as if you have a long chute between the actual weighing mechanism and a batch some place that can't clean itself. It is likely to hang up en route.

Q. Have you had experience in plants with see-

(Testimony of William H. Wisniski.)

ing what happened where the cement was hung up?

A. Yes.

Q. Give us an example of one of those cases, will you, [408] please?

A. It will hang up in practically every plant I have been around, it will hang in the batcher, and it has to be vibrated down, requiring quite a little vibration to vibrate down, and most plants have air connected to the batcher itself to aerate the cement, make it flow better.

Q. You would say from your previous statement that the longer the path the cement has to travel, the more places for it to hang up, and the more difficulty in hanging up would be encountered, is that correct?

A. That is correct, and in most places they accomplish not having it hang up, like on a large Johnson plant, generally you have a large collecting hopper, and if the cement came down by itself, it very well would coat that hopper and would hang up in there, but you time your ingredients so that something else knocks it on down. The other ingredients wipe it clean.

Q. You wouldn't recommend feeding the cement into the side of the gathering hopper at one side, would you, by itself?

A. Oh, it is done in many cases and done satisfactorily.

Q. Wouldn't it tend to adhere to the metal surface of the gathering hopper?

(Testimony of William H. Wisniski.)

A. Well, you should have some material passing over that mouth that wipes that gathering hopper clean.

Q. Have you had any difficulty with the conduit in that [409] type of hopper becoming clogged due to moisture? A. Not particularly.

Q. Not particularly. The use of vibrators in these mix plants, isn't that rather objectionable with the noise which they create?

A. Well, plants are naturally noisy in any case, especially where you have a mixer connected. That is very noisy, and the vibrator isn't much noisier than some of the other noises.

Q. In other words, it is just that much more noise?

A. Well, it is that much more noise. It is a necessary noise, I would say, because most hoppers don't empty too well by themselves, or in many cases they might, but you get a condition like I spoke of where if that batch has been in there for a considerable period, you may take quite a lot of vibration to kick it all loose.

Q. I take it that whether or not time is important in the mixing operation is a question of the particular job you are on. On some jobs it is important and on some jobs it isn't important, is that correct? A. Mixing time?

Q. Yes.

A. Well, it depends—that is true in many cases. There are jobs where their mixing plant is of such capacity where it can more than keep up with the requirement or the [410] placing facilities for the

(Testimony of William H. Wisniski.)

concrete. In other places they may have a small plant and will want the concrete much faster than the plant can deliver it, so the mixing time is of essence.

Q. Referring now to the Johnson patent which was pointed out to you on direct, and particularly to Fig. 1, you see the aggregate coming down at the sides, along the sloping sides, and then you see the cement coming down in the center, and at Fig. 2 you see much the same sort of thing.

Wouldn't the aggregate coming down the side, due to the fact that it is sliding along the sloping side, tend to project itself into and under the downwardly falling flow of cement, in your opinion?

A. Well, if you visualize the streams there, both sides have to pass down together, isn't that so?

Q. Yes.

A. Well, doesn't this material block the flow of this past that point?

Q. Would you say, then, that the cement tended to fall right down on top of the converging streams of the aggregate?

A. Well, it must if it is located right over the top of it.

Q. Would you say that the cement fell right into the aggregate?

A. Well, it does fall—the streams [411] converge.

Q. Yes. All right. Now, you have said you didn't know whether any mixing action took place up at this point. Let's assume these streams are

(Testimony of William H. Wisniski.)

falling down, the cement is falling into the converging streams. You have said that you didn't know whether any mixing action took place, and I think you said you rather doubted any did.

Wouldn't it be a fact, with the aggregates falling down, converging together, with the cement falling on top of the converging aggregates, that the cement would essentially, being a lighter substance, go into the voids in the aggregate and become mixed with it?

A. Well, you visualize—well, you take the sand, for instance.

Q. No; let's take the cement. I want to know what happens to the cement.

A. The cement, if this rock is extremely porous, it will enter the voids of the rock immediately adjacent to it, but how far that will penetrate is very questionable.

Q. You have never taken a cross-section right there to determine?

A. No. You can't really see what goes on there.

Q. Therefore, you don't know that it doesn't penetrate and mix at that point; do you?

A. I can't say that it mixes or doesn't mix.

Q. In other words, you don't really know whether it [412] mixes or not? A. No.

The Court: Does anybody know?

Mr. Sellers: No; but this witness said, your Honor, it didn't mix, and now I am interested in knowing that he doesn't know whether it mixes or not.

(Testimony of William H. Wisniski.)

The Witness: Well, I was just trying to visualize the actual streams there. To mix, you have got to get a folding and refolding of the material.

Q. (By Mr. Sellers): Do you distinguish, Mr. Wisniski, between mixing and intermingling? Does mixing have a particular meaning in the concrete art? The reason I ask is that I have heard you talk about rolling and rolling over and mixing, as though unless you have the rolling you can't have mixing. Now, supposing we don't have a rolling back and rolling over, but we merely have the streams coming together and the cement going into it. Wouldn't you have intermingling, whether you have mixing or not? A. I am sure it intermingles.

Q. Fine. That's all I wanted to know. You have referred to specifications of mixing times and that you didn't know that any particular specifications had been written for one type of batching plant as distinguished from another. Was that your statement?

A. Well, I might clarify that, because there are two big [413] differences, your dry plant and your wet plant, which make a big difference. Your dry plant, where your concrete is actually mixed in this transit-mixer, and it will generally have a specification for the transit-mixer in that case, and in another case where it is mixed in a wet plant, where it is actually mixed in a central mixer right below the batchers or adjacent; and you will have a certain mixing time specified for that.

Q. Would it be your opinion that these speci-

(Testimony of William H. Wisniski.)

fications of time are usually written in order to insure that even the poorest mix which gets in there will have adequate time to become mixed in the time allotted?

A. That is what they attempt to do.

Q. Yes.

A. But many times even poorly batched material or overloaded mixers, you don't get proper mixing even with that time specified.

Q. So that if the pre-mix or the interminglng which we have identified as possibly taking place or as taking place in the type of plant shown in Plaintiff's Exhibit 14, if there is that intermingling and the concrete is intermingled with the aggregate, the possibilities would be that such a mix, when put in a transit-mix truck, would have certainly a greater probability of being satisfactorily mixed within the time limit than one which is poorly mixed: wouldn't you say?

A. That is a difficult question to answer. The timing, [414] as I explained before, the timing of this material has a great——

Q. Let us assume we have simultaneous discharge of the aggregates and cement, they are all going down together, we do have the intermingling action I referred to, we have the cement and the aggregates being discharged with the cement intermingling. Now, my question would be in that case wouldn't you consider it likely or even more likely that such a mix would fall within the time limits specified than a mix which is poorly mixed, in which

(Testimony of William H. Wisniski.)

the cement was spaced at a distance from the aggregate?

Mr. Lyon: Your Honor, may I object to that question? I don't know what you mean by poorly mixed or spaced. Do you mean the time or distance?

Mr. Sellers: In distance.

Mr. Lyon: In distance.

Q. (By Mr. Sellers): Now, do you understand the question?

A. I am trying to visualize the question. Whether you had a condition like this where you batched your cement, intermingled it right at the point as against—what was your second condition?

Q. The second condition would be one in which the aggregate and the cement go into the mixing truck in a completely unintermingled condition.

A. That is true. I spoke of that experience where they [415] batched the cement on top of the batch and, of course, this condition where you intermingle it to some extent will improve your mixing action; yes.

Q. You use the words "to some extent." As a matter of fact, it would very likely improve it very definitely?

A. To what extent, I can't say.

Q. You believe it would very definitely have an influence in improving it?

A. It would influence the improvement. To what extent, I wouldn't say.

Q. You haven't tested it? You don't know?

(Testimony of William H. Wisniski.)

A. I wouldn't say without testing it. The type of mixer itself would have some bearing.

Q. In the cement flowing down as it does here, from the center hopper, protected from the sides, as it would be, the sides of the gathering hopper, the sides of the aggregate hopper, by the aggregate itself, would you not eliminate, in your opinion, any probability of the cement hanging up on the metal walls?

A. You can't eliminate it even with this arrangement entirely. One thing, if this doesn't discharge in the right sequence, which sometimes it doesn't do, all of this material could pass down and some of your cement falling on your bare hopper here, but even it wouldn't stay there in any case beyond the next batch, because this would wipe off from the material [116] passing over it.

Q. Assuming, however, a simultaneous discharge, would not the aggregates tend to eliminate any hanging up of the cement?

A. It wipes it clean.

Mr. Sellers: Thank you. That's all.

The Court: Before we excuse this witness, I want to be sure I get something clear. According to my notes, you testified that back in 1935 concrete was weighed separately from the aggregate hopper.

The Witness: Cement, sir.

The Court: I mean cement was weighed separately from the aggregate.

The Witness: Yes.

(Testimony of William H. Wisniski.)

The Court: There are two different weighing mechanisms?

The Witness: Yes, sir.

The Court: One weighed the cement and the other weighed the rock and gravel?

The Witness: There were actually several. On the big plant at Coulee, there were several.

The Court: The cement was weighed separately?

The Witness: Yes, sir.

The Court: Now, you testified it wasn't until 1947 that you became acquainted with an operation by which there was one hopper inside of another hopper, the inside hopper holding the [417] cement and the outside hopper holding the rock, sand and gravel; is that right?

The Witness: Yes, sir.

The Court: So you didn't become acquainted with the weighing of one inside the other until 1947?

The Witness: It so happened in that period that I didn't have the opportunity to——

The Court: Well, I know. I just want to know if I got your testimony correctly.

The Witness: Yes, sir.

The Court: All right.

Mr. Lyon: I have a couple of questions, your Honor.

(Testimony of William H. Wisniski.)

Redirect Examination

By Mr. Lyon:

Q. Referring now to the Robb patent, does not the aggregate and the cement become intermingled upon falling into the collecting hopper before passing into the mixing truck in the same sense that you were talking about there being a possibility of some intermingling in the——

Mr. Sellers: I believe that has been asked and answered, your Honor.

The Court: Overruled.

The Witness: Naturally, it would, as all the materials fall into the collecting hopper, they must intermingle. [418]

Q. (By Mr. Lyon): Any time you have a batching equipment with a collecting hopper, you have a certain degree of intermingling: is that correct?

A. That's right.

Q. That is always prior to it being discharged into the truck?

A. Regardless of the equipment you have, you have to have a collecting hopper, something that funnels the material down to a small enough chute that it can go into the restricted mouth of the mixer, regardless of the type.

Q. In other words, in all of your experience, in all the plants that you have seen, they have had a collecting hopper of some form in order to screen the material into a shaft small enough to get into the mixer? A. That's right.

(Testimony of William H. Wisniski.)

Q. And in that collecting hopper a certain degree of intermingling of the ingredients takes place? A. That's right.

Q. In such an apparatus where you have a collecting hopper, does not the discharge of aggregate wipe the cement from the collecting hopper and prevent it from hanging up?

A. Yes. Your timing and the batching of your materials must be such that you do accomplish that. You must time and batch your materials so that you never do have any cement or sand, too, under that condition hanging up there. [419]

Mr. Lyon: Thank you. That's all I have.

The Court: May this witness be excused?

Mr. Sellers: I would like to ask one question.

The Court: All right.

Recross-Examination

By Mr. Sellers:

Q. Didn't you say on direct, Mr. Wisniski, in the Robb patent construction which counsel just pointed out to you, that there was the very minimum of mixing action in that gathering hopper?

A. Well, he didn't say mixing. The question he asked was, is there any intermingling there. Well, there is as much intermingling in any gathering hopper.

Q. I don't believe that the record will show that counsel used the word intermingling in his direct examination. I think you said there was a minimum

(Testimony of William H. Wisniski.)

of mixing action. Do you recall, or can we check the record on that?

The Court: Well, now, the record speaks for itself.

The Witness: Well, probably the reason I didn't use intermingling there was you brought up the point and introduced the term of intermingling to me.

Mr. Sellers: I move to strike that as not responsive to my question.

The Court: It may go out. [420]

Mr. Sellers: Your Honor, I believe the record would show that the witness, in honesty I admit, has stated two different facts in his direct and in his redirect.

The Court: It is up to the court to evaluate the testimony of this witness.

Mr. Sellers: You would rather not take the time to check it?

The Court: I don't want to take the time to go back and check the record.

Mr. Sellers: Thank you, your Honor.

The Court: May this witness be excused?

Mr. Sellers: Yes.

The Court: You may be excused.

(Witness excused.)

The Court: Call your next witness.

Mr. Lyon: Mr. Stromberg, please.

MERLE STROMBERG

called as a witness by and on behalf of the plaintiff, having been heretofore duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Lyon:

Q. I show you Exhibit 14, indicating the means for [421] dispersing water into the aggregate shaft, and ask you how many of such means have you ever manufactured? A. One.

Q. And that means was positioned on what plant? A. The Stanton plant.

Q. Have you ever had contact with any other such means? A. Yes.

Q. Where was that?

A. One was installed by the Conveyor Company on the Gardena plant. It was in operation about five or six months. They found out that it had a plugging action at the discharge end. It was taken off and used for the purpose of burning papers and other materials.

Q. So you did not place that particular water dispersing means on that Gardena plant?

A. No.

Q. You were merely asked to remove it?

A. The one that was removed was not placed there by me.

Q. So that you have made only one of these devices and installed it; is that correct?

A. Yes.

Q. You testified on your deposition, I believe,

(Testimony of Merle Stromberg.)

that the majority of your plants—I forget the words counsel used—were of the Johnson type at that time, and you testified, when [422] asked the question later, as of this date that some 50 per cent of your plants had a hopper within a hopper.

Why did you change your construction from this type to the side entering type? Was that on the advice of counsel?

The Court: Well, we don't have any testimony here that he changed the construction, as far as I know.

Mr. Sellers: Thank you, your Honor.

Mr. Lyon: He made an effort to point out the inconsistencies in Mr. Stromberg's testimony and I am trying to clarify it.

The Court: That may be true, but he hasn't testified he changed his design.

Mr. Lyon: Pardon me. I will ask the question again.

The Court: You can ask him if he did.

Mr. Sellers: The record shows, your Honor, he stated the drawing there was typical of all the plants he has made.

The Court: All right. Proceed.

Q. (By Mr. Lyon): Have you made a side entry plant? A. Yes.

Q. When did you start making those plants, do you recall?

A. About three and a half years ago, I believe, was my first one.

Q. Did you stop making this type of a [illegible]tching

(Testimony of Merle Stromberg.)

apparatus at one time? [423] A. Yes.

Q. Why did you stop?

A. On the advice of my counsel at that time.

Q. So that at the present date approximately 50 per cent of the plants that you have constructed are of this type; is that right?

A. Of that means of aggregate hoppers and cement hoppers in the center on separate scales.

Mr. Lyon: That's all the questions I have.

The Court: Now, counsel, restrict your cross-examination to the problem that has been presented.

Mr. Sellers: Thank you, your Honor.

Cross-Examination

By Mr. Sellers:

Q. In the plant we are looking at, as illustrated in Plaintiff's Exhibit 14, are the bins marked sand, gravel, and sand, part of the plant?

A. Part of the plant?

Mr. Lyon: Object to that, your Honor. That goes beyond the scope of the direct examination.

The Court: Sustained.

Mr. Lyon: I asked him two questions.

Mr. Sellers: All right.

Q. In the drawing shown in Plaintiff's Exhibit 14, do [424] we show a gathering hopper as a part of the plant?

Mr. Lyon: I will object to that as beyond the scope of the direct examination.

The Court: Overruled.

(Testimony of Merle Stromberg.)

Mr. Lyon: I asked him only about two points.

The Court: This is preliminary. The water apparatus is part of the gathering hopper.

The Witness: Will you repeat the question?

Mr. Sellers: Will you repeat the question?

(Question read.)

The Witness: Yes; you show it as part of the plant.

Q. (By Mr. Sellers): Is the water discharge means a part of the gathering hopper?

A. Yes.

Q. And is it not a fact that you have stated that the illustration we have embodied in Plaintiff's Exhibit 14 is typical of all the plants you have made of the type in which a center hopper is positioned between the portions of aggregate?

Mr. Lyon: I will object to that, your Honor.

Mr. Sellers: I have the right to cross-examine this witness to point out, your Honor, that he stated the same thing differently two different times.

The Court: Overruled. Read the question.

(Question read.)

Q. (By Mr. Sellers): Have you or have you not so stated? [425]

A. Of this type, yes.

Q. Then you agree, then, that in the plants of the type embodying the centrally positioned cement hopper, and the position between the aggregate hop-

(Testimony of Merle Stromberg.)

pers, that the showing of Plaintiff's Exhibit 14 is typical?

A. It is if two scales are used, yes.

Q. You have stated on direct that you stopped making one type plant. What type plant was it you stopped making?

A. I haven't stopped making any type of plant. On the advice of my counsel I have refrained from building an aggregate hopper with partitions in it for a separately hung cement hopper.

Q. When did you begin your refraining from building that type of construction?

A. Well, it was in 1955, some time during 1955. I would say about the middle of 1955.

Q. That was after you built the Stanton plant, was it? A. Yes.

Q. I would like to know how you bring into agreement the fact that the showing here in Plaintiff's Exhibit 14 is typical of all the plants you have made of this type, when you stated on direct examination to your counsel that the other plants you made did not have water feed as shown here?

Mr. Lyon: Your Honor, I will object to that as argumentative. Counsel's terminology in his question initially was, [426] is this typical of your plants showing a hopper within a hopper construction? It did not extend to the whole plant or the whole details.

The Court: As I remember the original examination, no mention at all was made of the water feed. In fact, you are the one who brought up the water

(Testimony of Merle Stromberg.)

feed. I did not know the water feed was in this case.

Mr. Lyon: It is in Claim 5, your Honor.

The Court: That's all right, it is in the claim, but as far as the testimony was concerned, I don't think this witness was asked anything about the water feed.

Mr. Lyon: I agree with your Honor. The question he asked on direct examination did not incorporate that feature.

The Court: You are the only one who asked about water feed.

Mr. Lyon: That's right.

Mr. Sellers: My point is, your Honor, he has stated he didn't make plants with gathering hoppers in any plant other than this plant, I believe.

The Court: No. My understanding is he didn't make a plant with this particular kind of water feed.

Mr. Sellers: All right.

The Court: The watering feed is only part of the gathering hopper.

Mr. Sellers: All right, your Honor. I will accept that, your Honor, but the witness has testified on cross that this drawing showing this construction is typical of all the plants.

The Court: Generally typical. We were talking, as far as I know, about the center hopper being within the aggregate hopper, and I thought that was the issue here.

(Testimony of Merle Stromberg.)

Mr. Sellers: That is, but claim 5 also brings in the water feed, your Honor.

The Court: You didn't ask about the water feed. The fact of the matter is until Mr. Lyon asked the question, nobody had asked a question about the water feed.

Mr. Sellers: Well, it has been stated on cross examination, your Honor, that the water feed is a part of the gathering hopper, which is shown here, and he has stated that is part of the plant.

The Court: That's right.

Mr. Sellers: And he has also stated that the showing here is typical of all the plants.

The Court: I know what he stated.

Mr. Sellers: All right. I shall let it rest at that. That's all, your Honor. Thank you.

Mr. Lyon: No further questions.

The Court: It's nearly 4:00 o'clock and I don't think we will call another witness until in the morning.

Mr. Lyon: That's all. You may step down, Mr. Stromberg. [428]

(Witness excused.)

The Court: Court will stand in recess until 10:00 o'clock tomorrow.

(Whereupon, an adjournment was taken to 10:00 o'clock, a.m., Friday, March 16, 1956.)

Friday, March 16, 1956—10:00 A.M.

The Clerk: No. 17,121-HW, C. S. Johnson Company vs. Merle W. Stromberg, et al., further trial.

Mr. Lyon: Mr. Murasko, will you take the stand, please?

VERNON MURASKO

called as a witness by and on behalf of the defendants herein, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name, sir?

The Witness: Vernon, V-e-r-n-o-n, Murasko, M-u-r-a-s-k-o.

Direct Examination

By Mr. Lyon:

Q. What is your present occupation, Mr. Murasko?

A. Plant Superintendent for Western Concrete Company in Los Angeles.

Q. What is your age, sir? A. 52.

Q. What was the first occupation you had?

A. My first occupation was working for the American Can Company in San Francisco when I graduated from school.

Q. When did you have that job?

A. Probably in 1916.

Q. Where were you employed in 1920? [432]

A. In 1920 I was a stevedore for Matson Navigation Company.

Q. In 1921 where did you go to work?

A. I went to work for Pode Gravel Company

(Testimony of Vernon Muraske.)

or Bode Mixed Concrete Company. They are recognized under both names.

Q. What were your duties for the Bode Company?

A. In 1920 I was a truck driver for them.

Q. How long did you continue as a truck driver?

A. I drove a truck for them until 1929.

Q. At which time you undertook what duties?

A. Well, I was out of their employ during the depression for a period of several months in the latter part of 1929. I went back to work for them as a plant operator in 1930.

Q. What kind of plant were you operating?

A. Wet mix concrete plant.

Q. Where was this plant located?

A. On Geneva Street and Tara Street.

Mr. Sellers: Your Honor, I should like to object to this entire line of testimony for the reasons we have previously discussed. There has been no notice.

The Court: I don't know. He is laying a foundation. I don't know what he is leading up to. Maybe you know more than I do.

Mr. Sellers: I think I do, your Honor. [433]

The Court: Let's wait until it develops.

Mr. Sellers: All right. I want the record to show though, I think it is for anticipatory purposes and I do object.

Q. (By Mr. Lyon): How long did you operate the Geneva plant?

A. Oh, for a period of about six months.

Q. Then where did you go, sir?

(Testimony of Vernon Murasko.)

A. The company I was working for decided to construct another plant at 235 Alabama Street in San Francisco, and due to the success I made of operating the Geneva plant, they put me down there before that plant was completed to learn the details of it and to operate it. It was in the downtown area of San Francisco, a major installation.

Q. I now show you Plaintiff's Exhibit A for identification and ask you if this drawing illustrates the construction of the aggregate and cement hoppers in that plant.

A. I worked with the firm——

The Court: Wait a minute. You say that plant. Which plant?

The Witness: That is the Alabama plant.

Mr. Lyon: The Alabama Street plant.

The Court: When was the Alabama plant established?

The Witness: 1931.

Mr. Sellers: I wish to object, your Honor. There has [434] been no proper foundation laid for this drawing.

The Court: What do you mean? Isn't the drawing in evidence?

Mr. Sellers: It has been marked, but he is about to identify it as being connected with the plant he worked for. It has not been established who made the drawing.

The Court: What is the number?

Mr. Sellers: Or its accuracy.

Mr. Lyon: It is Defendants' Exhibit A.

(Testimony of Vernon Murasko.)

The Court: Is A in evidence?

The Clerk: No. It is marked for identification.

Mr. Lyon: I am trying to lay a foundation for it at the present time.

Mr. Sellers: Did this gentleman make the drawing?

Mr. Lyon: If you will permit me to interrogate him further, Mr. Sellers, I believe I can establish his knowledge of the drawing.

The Court: Objection overruled.

Q. (By Mr. Lyon): At the time that the Alabama Street plant was being constructed, did you see drawings of that plant?

A. I saw a drawing similiar to this.

Q. It showed the same details as this?

A. Same details, yes.

Mr. Sellers: I object, your Honor, to the leading [435] question. This is very critical and I don't believe the witness should be led.

The Court: There has been a lot of leading questions in this case by both sides. I think you have been just as much at fault as far as leading questions are concerned.

Mr. Sellers: There were no objections, your Honor.

The Court: Yes, but I noticed there were leading questions. All right. Don't lead the witness.

Mr. Lyon: I will try not to.

The Court: May I inquire? You said when you quit school. What school did you quit?

(Testimony of Vernon Murasko.)

The Witness: I graduated from the Columbia Grammar School in San Francisco.

The Court: You didn't go beyond the grammar school stage?

The Witness: No, sir.

The Court: You had no engineering experience?

The Witness: No, sir, I did not.

The Court: Have you had any engineering training relative to the drawing of blueprints?

The Witness: No, sir, at that time, no.

The Court: Since then?

The Witness: Since then I have constructed 15 complete plants.

The Court: You have constructed. Were you in charge? [436]

The Witness: That's right. I am in charge of building a plant at Costa Mesa right now.

The Court: From blueprints?

The Witness: Yes.

The Court: And from plans and specifications?

The Witness: Right.

The Court: How long have you been building these plants from plans and specifications?

The Witness: Let's see. On my own——

The Court: You say you built 15 of them?

The Witness: I started in 1942 in Nevada. I constructed three plants there. I made a good reputation for myself and the company I was working for brought me to Los Angeles.

The Court: Well, we know your reputation is good and all that, but I am not interested in your

(Testimony of Vernon Murasko.)

reputation. I am interested in your background relative to the reading and interpretation of plans and specifications and drawings.

The Witness: Certainly from experience on the job.

The Court: In the building of these plants, you had to read plans and specifications?

The Witness: That's right.

The Court: Interpret blueprints?

The Witness: That's right.

The Court: How many years have you been doing that?

The Witness: Since 1931. [437]

The Court: Since 1931?

The Witness: I operated this particular plant, yes, and I rebuilt it, rebuilt the Geneva plant. I put up plants or rebuilt plants in the Los Angeles area for various companies besides the company I worked for because of my experience.

The Court: Do you want to take this witness on voir dire relative to his qualifications to read blueprints?

Mr. Sellers: Yes, your Honor.

The Court: You may take the witness on voir dire.

Voir Dire Examination

By Mr. Sellers:

Q. What is your educational background, please? A. Grammar school.

(Testimony of Vernon Murasko.)

Q. From grammar school you went to work as a stevedore?

A. No. I went to work for the American Can Company.

Q. Then later you became employed as a stevedore? A. That's right.

Q. Then later you went to work for the Bode Gravel Company, Bode Mixed Concrete?

A. That's right.

Q. In that connection you were a truck driver?

A. That's right.

Q. Did you have any contact with drawings at that time? A. No, I didn't. [438]

Q. When the Alabama Street plant was constructed, did you have anything to do with the design of that plant? A. No, I did not.

Q. What was your employed position with the company at that time?

A. I was the operator of their Geneva plant, and this business, ready-mix concrete business, was in its infancy at the time.

Q. Please. That is not responsive.

A. I see.

Q. What were your duties in your position with the company at that time?

A. To help build that plant and learn how to operate it.

Q. Do you know who made the drawings for that plant?

A. Bodinson Manufacturing Company.

Q. Who?

(Testimony of Vernon Murasko.)

A. Bodinson Manufacturing Company, B-o-d-i-n-s-o-n.

Q. I would rather you speak from your own recollection, please.

A. I remember the man that built it.

Q. Bodinson Manufacturing Company made the plant? A. That's right.

Q. Who was the engineer in charge of that company? A. Jones, Senior. [439]

Q. Do you remember his first name?

A. At times I do and at times I don't.

Q. How about this time? A. No, I don't.

Q. Just Jones, Senior? A. That's right.

Q. Was there a Jones, Junior?

A. I met his son since then. He must have had the son at that time.

Q. He must have had a son, but you don't know?

A. No, he did have a son.

Q. Are you sure? A. Positive.

Q. Where was he? A. I don't know.

Q. Did you see Mr. Jones, Senior, make any drawings for the Alabama Street plant?

A. No, I did not.

Q. Do you know whether or not he made any drawings?

A. He was supposed to have made them. He was the engineer for Bodinson Manufacturing Company.

Q. Do you know where Mr. Jones, Senior, is now? A. Mr. Jones, Senior, is dead.

Q. How do you know that?

(Testimony of Vernon Murasko.)

A. He was in an automobile accident with Mr. Bodinson [440] going North.

Q. Were you there at the time?

A. No, I was not.

Q. You merely heard about it?

A. That's right.

Q. You don't know it to be a fact of your own knowledge? A. I don't.

Q. You didn't attend the funeral?

A. I didn't attend the funeral, but I know a lot of people that were there.

Q. You don't know who made the drawing, the drawing that is the original of this?

A. I presume Jones, Senior, made the drawings.

Q. But you didn't see him make them?

A. No.

Q. Did he tell you that he made this?

A. No, he didn't.

Q. Did he tell you what scale he made that drawing to? A. No, he didn't.

Q. Did he tell you he made it accurately?

A. No, he didn't.

Q. Didn't tell you he made it at all, did he?

A. No, he didn't.

Q. As a matter of fact you don't know who made it? [441] A. I presume——

Q. No. Do you know?

A. I don't know who made it.

Q. You don't know where the original has been from that time up to this, do you, the original of this ozalid print? A. No.

(Testimony of Vernon Murasko.)

Mr. Sellers: Do you think he is qualified to testify concerning this drawing, your Honor?

The Court: Well, he may not be qualified to testify as to drawings, but he is certainly qualified to testify how he built the plant, if he built it.

Mr. Lyon: If your Honor please, I have somebody else to testify to the drawings. All I want this man to testify to is how he built it.

Mr. Sellers: All right, then, if you will admit that he can't identify the drawings, we will go on to the plant.

Q. You say you built the plant?

A. No, I did not.

Q. What did you do?

A. I was helping to build the plant so I would know how to operate it.

Mr. Lyon: Your Honor, I thought he had him on voir dire to question his ability to recognize this drawing, not to cross-examine him as to his whole testimony, which hasn't been [442] given yet.

Mr. Sellers: How can he recognize the drawing? He never saw the original.

The Court: Well, Mr. Lyon says he is not going to offer the drawing upon the testimony of this witness. That was the only purpose of the voir dire, and I think possibly you have established your point.

Mr. Sellers: I would like to establish a little bit more, if I may, your Honor, whether or not at the time he built the plant he had any experience in reading drawings.

(Testimony of Vernon Murasko.)

The Court: All right. You can do that.

The Witness: I did not.

Q. (By Mr. Sellers): I beg your pardon?

A. I did not.

Q. Do you have any recollection that at the time that plant was built you ever saw the original of this particular drawing?

A. I saw a drawing similar to this.

Q. What do you mean by similar?

A. The same type of drawing, the same scale, the same hoppers, because I operated those hoppers for 15 years.

The Court: You say you operated them?

The Witness: I did.

Q. (By Mr. Sellers): That was before or after this drawing? [443]

The Court: That was after the plant was established. He couldn't do it before the plant was built.

Mr. Sellers: That is correct.

Q. At the time, however, that plant was built, you had no experience in reading drawings whatsoever? A. None whatsoever.

Q. So as of that time you were unskilled in the reading of drawings, you really were unable to determine what a drawing showed at that time, weren't you?

A. I will have to answer you in different languages, yes and no. There is no detail to this. There was a picture, a sketch, and it was easy to recognize when the original metal was in front of you.

(Testimony of Vernon Murasko.)

Mr. Sellers: Well, I move to strike that as not responsive.

The Court: Denied.

Mr. Sellers: I would like to know, also, how you know what the sketch was if you didn't see the original drawing at that time. You said you saw a similar drawing, but you didn't see this drawing, did you?

The Witness: I saw one tracing the same as this one.

Q. (By Mr. Sellers): It was similar, wasn't it?

A. That's right.

Q. But you never saw this drawing before?

A. I don't know how many drawings were made before. [444]

Mr. Sellers: Your Honor, I respectfully represent that this gentleman at the time this drawing was represented to be drawn——

The Court: We are not questioning the drawing now. The drawing is out of the picture at this time. He can testify to what he did and saw regardless of the drawings, can't he?

Mr. Sellers: He certainly can, but I want to prevent this drawing getting in if I can.

The Court: Well, it hasn't been offered yet, as far as I know. If it is offered, the offer is refused at this time.

(Testimony of Vernon Murasko.)

Direct Examination
(Resumed)

By Mr. Lyon:

Q. Now, when you were operating the Geneva plant and were transferred to the Alabama Street plant, what was the condition of that plant? Was it fully constructed or not at the time you shifted?

A. The Alabama plant, you are speaking of?

Q. Yes, the Alabama Street plant.

A. The structure was built, but it was not being operated. It was minus the machinery.

Q. Minus the batching equipment?

A. That's right.

Q. The physical structure was there?

A. Yes. [445]

Q. What was that made of?

A. The structure was made of wood.

Q. Were you present while the batching equipment was being constructed?

A. I was present while it was being installed.

Q. In other words, it had been constructed somewhere else and brought there and installed in the structure that was there at the time you were there?

A. That's right.

Q. Do you know who built the batching equipment?

A. Bodinson Manufacturing Company.

Q. Did you help in the installation of this batching equipment in this structure?

A. I helped install these same hoppers.

(Testimony of Vernon Murasko.)

Mr. Sellers: Your Honor, I am going to object to these leading questions.

The Court: Overruled.

Q. (By Mr. Lyon): What was the construction of the hoppers? A. The hoppers were steel.

Q. How many hoppers were there in the batching equipment? A. Two.

Q. One for the aggregate and one for the cement? A. Correct. [446]

Q. How were they disposed with respect to each other?

A. The cement hopper hung inside of the aggregate hopper.

Mr. Sellers: Your Honor, I wonder if we may not ask that the drawing be removed from in front of the witness while he is testifying.

The Court: All right.

Mr. Sellers: There has been no basis laid to refresh his recollection from the drawing.

The Court: It may be removed.

Mr. Lyon: He has already testified he has seen it, but he doesn't need it.

The Court: Just a minute now.

You helped to construct this Alabama Street plant?

The Witness: I really helped to install the machinery.

The Court: You helped to install the machinery, you helped to install the hoppers?

The Witness: Yes.

The Court: Of your own recollection, you now

(Testimony of Vernon Murasko.)

say that the cement hopper was inside the aggregate hopper?

Mr. Sellers: He hasn't said that, your Honor.

The Witness: Yes, sir.

The Court: That is exactly what he said.

Mr. Sellers: I beg your pardon. I didn't hear him say it. [447]

The Court: Do you know whether or not there was a weighing apparatus connected to the cement hopper and the aggregate hopper?

The Witness: There were separate Krone dial scales connected to each hopper.

The Court: Independent of each other?

The Witness: Right.

The Court: This was in 1931?

The Witness: 1931.

Q. (By Mr. Lyon): How long did you operate the plant under those conditions?

A. I operated the plant physically for about ten years, and then I was made superintendent of the complete company.

Q. At the time this Alabama Street plant was constructed, where were the discharges of the cement hopper and the aggregate hopper disposed with respect to each other?

A. On the bottom.

Q. Was the cement hopper discharge positioned above the aggregate hopper discharge?

A. The discharge was above——

Mr. Sellers: I object to leading the witness, your Honor. He is leading the witness.

(Testimony of Vernon Murasko.)

The Court: Don't lead the witness. The witness can testify as to where the discharge of the cement hopper was relative to the discharge of the aggregate hopper. [448]

Mr. Lyon: All right.

Q. Can you draw for me a view of the hopper construction both from a side elevation, and then show me a second drawing of the discharges and their location with regard to one another?

A. Yes, I can. The discharge gate is here. There were baffles built like that within about four inches of this gate.

Q. Pardon me just a minute. Would you mark this gate with an A, just draw a lead-line and mark it with an A?

A. The cement scale, the counter of it was the same as the——

Q. The cement hoppers?

A. The cement hoppers.

Mr. Sellers: I suggest you let him describe it.

The Witness: They hung here inside and the gate was here.

Q. (By Mr. Lyon): Would you like to label that gate with a B, please?

A. Looking at it from the top, your aggregate hopper was built like this. This is a section here.

Q. What does that represent?

A. That represents this baffle plate.

Q. Will you mark the baffle plate with a C, please? Just draw a line and mark it with a C, and would you do the same in the other drawing? [449]

(Testimony of Vernon Murasko.)

A. That was to give the hopper strength so these would not collapse. The cement hopper hung inside of it and was suspended with four long bolts to the ceiling.

Q. Just a moment, please. Would you label the cement hopper in the same manner except with a D?

A. All right.

Q. And also in this other view? A. Yes.

Q. Would you label the aggregate hopper with an E in both views? A. (Witness complying.)

Q. Now, will you continue your description, please?

A. Well, that takes care of it. Each hopper was suspended with four bolts from the ceiling, four bolts on the cement hopper and they supported the scale mechanism with a lever from this cement hopper, which was a little bit higher than the aggregate hopper. The beams of the weighing mechanism was there, and the lever came out to the side here and hooked to a dial scale.

Directly opposite that, the dial scale for the aggregate hopper was suspended from here.

Q. Will you mark that F, the scale for the aggregate hopper? A. (Witness complying.)

Q. Now, let's mark the figure 1 and figure 2, would you, [450] please?

A. (Complying.) I made a slight error here. I made an E instead of an F.

Q. Looking at figure 1, where is the cement hopper discharge located with respect to the aggregate hopper discharge?

(Testimony of Vernon Murasko.)

A. Approximately 12 inches above the aggregate hopper gate. This aggregate hopper gate had to be opened, and then you would open the gate on the cement hopper and it would go into the mixer.

Q. Just a minute. Pardon me, please.

A. All right.

Q. So the difference between A and B in figure 1 was substantially 12 inches, is that correct?

A. That is from bottom to bottom.

Q. Referring to figure 2, now, would you explain the relationship of the cement hopper discharge to the aggregate hopper discharge?

A. The aggregate hopper discharge had to be open to let the cement go out with it. In other words, you could open your cement discharge, but nothing would go out of that scale until the aggregate hopper gate was open, and then all your materials would come out together.

Q. Yes, but I am trying to find out where they were positioned. Off to the side, or something like that?

A. They were dead center, one above the [151] other.

Q. Positioned below the aggregate hopper was there anything between this mechanism and the truck or mixer in which it was discharged?

A. There was a stationary mixer. These two hoppers discharge into a stationary mixer. The concrete was mixed, dumped into a hopper, and there was an air gate on the hopper which would be

(Testimony of Vernon Murasko.)

opened by the driver of the mixer truck and the concrete would go into the mixer truck.

Q. You operated the plant in this condition from 1931 until when?

A. From 1931 until the last day of May, 1942.

Q. Was there anyone else present who operated that plant during that period?

A. A man by the name of Cornett worked for me. That is C-o-r-n-e-t-t.

Q. Did Mr. Cornett operate the plant during this period?

A. He operated very often. While I was superintendent, he was the operator.

Q. Did anyone else operate this plant besides you and Mr. Cornett?

A. A man who now is dead. Cahill is his name, C-a-h-i-l-l.

Q. What were some of the jobs upon which concrete mixed from this plant was used, can you recall? [452]

A. The Federal Building in San Francisco, the War Memorial Building in San Francisco, Sunset Reservoir in San Francisco, various sewer jobs, various buildings.

Q. Any particular structure built during that period of time which would help you locate in time when this plant was being constructed or operated?

A. One of the first jobs that this plant serviced was Letterman Hospital in San Francisco.

Q. Do you recall when the hospital was built?

(Testimony of Vernon Murasko.)

A. We were pouring concrete there in 1932 and 1933 on sidewalks, curbs and gutters.

Q. Did you use any concrete from this plant in any of the bridges in San Francisco?

A. We did.

Q. Which bridge?

A. The San Francisco Bay bridge.

Q. When was the San Francisco Bay bridge built, to your recollection?

A. My recollection would be around 1938. I am not sure.

Q. Are there any other buildings that concrete poured from this plant went into that would help you locate the point of time when all this occurred?

A. Why, yes. There was a reservoir being built in San Francisco they call the University Mound Reservoir. [453]

Q. About when was that constructed?

A. That would be about 1931. It was an addition and a repair job.

Q. Did this plant have any mechanism for inserting water into the mixture of cement and aggregate?

A. On the side of the aggregate hopper was a tank.

Q. Would you draw that in figure 1, please?

A. Well, figure 2 would be much better.

Q. Figure 2, if it is easier.

A. This here was built right on the side.

Q. Will you label that G, please?

A. (Witness complying.) Discharge pipe from

(Testimony of Vernon Murasko.)

of the hopper so it would not interfere with the weighing. We weighed our water and there was a separate lever on it.

The Court: You say you weighed the water?

The Witness: Weighed the water, yes.

The Court: All right.

The Witness: The tank was on a side view like this.

Q. (By Mr. Lyon): Label that G again, please, sir.

A. And there was a valve here and the water was weighed, with flexible line coming down to the mixer hopper here so that it would not interfere with the action of the scale. The water was weighed first. The cement, gravel and sand were weighed simultaneously.

The Court: How was the water inserted into the mix? [454] Just one stream?

The Witness: One steady stream.

The Court: Just one steady stream?

The Witness: That's right. The weighed water would discharge.

Q. (By Mr. Lyon): Would you describe the typical operation that you performed in batching concrete using this apparatus? Take us through the steps.

A. We would start weighing our cement, because it was slow weighing them days, and we would weigh our water while our cement was being weighed. Would weigh our gravel and sand.

Q. Pardon me just a moment. When you say

(Testimony of Vernon Murasko.)

weigh, let's follow the flow of the materials from some place to some place and see where they are weighed and how they are weighed.

A. We would weigh the cement that was fed from a tank directly overhead with a rotary feeder.

Q. Would you label that H, please? Thank you.

A. The cement would go into this here cement hopper. It had an automatic cut-off when it was first installed, and while it was being weighed automatically, I would weigh my water and weigh my gravel and sand.

Q. Now, let's get the gravel and sand into the aggregate hopper so we can weigh it.

A. There were eight gates above this hopper here, each [455] for a different size material. Eight gates here and the cement here.

Q. Would you label one of those gates as I?

A. (Witness complying.)

Q. Thank you. And through those gates from a bin your aggregate material was poured into your aggregate hopper? A. Right.

Q. And in the aggregate hopper, then, the accumulation was weighed?

A. We use the cumulative weight on a dial scale.

Q. Now, with the cement in the cement hopper and the aggregate in the aggregate hopper, what was the next step in the operation?

A. We would open both gates simultaneously and leave the material, gravel, sand and cement and also the water, go into the stationary mixer.

(Testimony of Vernon Murasko.)

The Court: You turned it all on at the same time?

The Witness: All at the same time.

The Court: Including the water?

The Witness: Including the water.

The Court: Was there any problem of the water getting into the aggregate hopper? I mean into the mixing hopper first?

The Witness: It would make no difference. It was only a 28 S, one yard mixer, and was approximately 30 gallons. We [456] used about 250 pounds of water per yard on the average.

The Court: It wouldn't make any difference whether the water went in first?

The Witness: It wouldn't make any difference if the water went in first.

The Court: It wouldn't cause any balling?

The Witness: No, not in that size mixer.

The Court: So the water, the sand and gravel and cement were all turned on at the same time and they all went down this mixing hopper?

The Witness: That's right.

Q. (By Mr. Lyon): During the discharge, did the aggregate, the discharge from the aggregate hopper surround the cement discharged from the discharge hopper?

A. That was one of the features for having it built that way, because it did have a tendency to hold down the dust. The gravel and sand would come down and the cement would go down the center of it, and our feeding hopper to our mixer.

(Testimony of Vernon Murasko.)

stationary mixer, was built very steep. The gravel and sand would flow on it with a minimum amount of cement sticking to it. That was the principle of this design.

Mr. Lyon: I believe that's all the questions I have.

The Court: Now, Mr. Sellers, in order to preserve your record, I will entertain a motion relative to the striking of the testimony of this witness relative to the fact that you [457] didn't have notice.

Mr. Sellers: I do make such a motion, your Honor. Thank you.

The Court: You had better state your motion just exactly as you want it in the record. You said this is important and I agree with you it is important, so I want the record to show your motion as you want it.

Mr. Sellers: Your Honor, I wish to make the motion that the testimony of this witness be stricken in its entirety, the defendant having failed to comply with the provisions of 35 U.S.C., 282, requiring the giving of 30 days' notice prior to trial of prior public use, and including the other provisions with which he has failed to comply. I believe while it is a fact that the matter rests within the discretion of your Honor, yet in this case the exercise of that discretion in favor of the defendant is not to be indicated. I don't think you want an argument at this time. There is my motion.

The Court: No, I don't want an argument, but I want to ask you a question. Because of the testi-

(Testimony of Vernon Murasko.)

mony here and the production of this witness, this knowledge will become general among the trade. The next time you attempt to establish a patent or the next time you file a suit for infringement of this patent, if the patent is sustained, they will raise a question whether or not there is prior use. Wouldn't that be a good defense in a subsequent suit? [458]

Mr. Sellers: That would be important were it not a fact that the patent has expired. In other words, we are here seeking damages for past infringement. The patent has expired and—well, there could be more suits.

The Court: You mean to say the only thing you are interested in in this case is damages?

Mr. Sellers: Yes, your Honor.

The Court: It is not a question of the establishment of your patent?

Mr. Sellers: The patent has expired, your Honor.

The Court: So what you are fighting for here is damages?

Mr. Sellers: That is correct.

The Court: The motion is denied.

Mr. Sellers: May I ask your Honor how the fact we are fighting for damages——

The Court: Well, this is purely within the discretion of the court.

Mr. Sellers: Yes, your Honor. On that basis I have nothing to say.

The Court: If I believe the testimony of this witness, here was a plant that was built practically

(Testimony of Vernon Murasko.)

identical to the plant you claim to have a patent on.

Mr. Sellers: That fact was not known to us, of course, your Honor. [459]

The Court: That doesn't make any difference. Your patent wouldn't have been good. You are asking for damages on a patent that from this testimony, if I believe it, was no good.

Mr. Sellers: If you believe this testimony and if this testimony is properly before the court. Whether or not the patent is no good is a question of fact and I would respectfully contend, your Honor, it is our position that this evidence should not be here.

The Court: I thought there was a statement the other day by someone, I don't know who it was, to the effect that there was a patent infringement case on this patent pending in Chicago.

Mr. Sellers: To clarify that, your Honor, there was. It was a case—rather, let's put it this way. This patent, as I understand it—I was not a party to that action, but this patent was involved in a declaratory relief portion of an action back in Chicago, but I think possibly Mr. Denny can answer this question much more accurately than I can, your Honor, because he was there. If you want to know, I will ask him to tell you, your Honor.

The Court: I am interested—don't patents run for 20 years?

Mr. Sellers: 17 years, your Honor.

The Court: 17?

Mr. Sellers: Yes. [460]

(Testimony of Vernon Murasko.)

The Court: I thought it was 20. Wasn't it formerly 20 years?

Mr. Sellers: No, your Honor, not in the recent past. Trade-marks are 20. If you would like to hear about the case back in Chicago——

The Court: No, no. I was under the impression from what was stated here that you were trying to establish the validity of your patent.

Mr. Sellers: We must do that in order to recover, your Honor.

Mr. Lyon: May I call your attention to the fact there was another case filed in this District Court against the Lee Valley Ready-Mix Company, which was settled out of court. The number of that action was one number below or one number above the number assigned to this action, so this patent has been enforced against other parties before its expiration.

Mr. Sellers: I don't say that. I don't mean to imply that, and I wouldn't. The question was whether or not there was a suit pending in Chicago. There was a suit back in Chicago and this patent came in, but it was never adjudicated, as I understand it.

Is that correct?

The Court: Well, I guess maybe I was misled by your complaint, because the prayer of the complaint says, "Wherefore plaintiff prays for a preliminary and final injunction against [461] further infringement."

Mr. Sellers: At the time this complaint was

(Testimony of Vernon Murasko.)

filed, the patent had not expired, your Honor. In other words, it has expired since we filed our complaint. This case has been pending some time. It had about four or five months to run. It was 18 months. I'm sorry.

The Court: I guess that wasn't brought to my attention, because from reading the complaint and reading the prayer, I thought this was an action in which you wanted to establish the validity of the patent and in addition thereto obtain damages for infringement if the patent was valid.

Mr. Sellers: We certainly do want to establish that it was valid, your Honor. Otherwise we are not entitled to damages. But as of this time your Honor will not grant us an injunction because since we filed the complaint the patent has expired.

The Court: Well, this matter is purely within the discretion of the court. I think the court's discretion leads me to the conclusion that the motion should be denied. I think justice demands that your motion should be denied.

Mr. Sellers: Then why do we have that statute? I would respectfully point out to your Honor we have had absolutely no opportunity in this case to take advantage of the rules which ordinarily protect us when given the rights under 28 U.S.C. 282. We have had no chance to go to San Francisco [462] where this man comes from, I understand. We have had no chance to verify what he says.

The Court: If you want to check upon the veracity of this witness and check upon the jobs

(Testimony of Vernon Murasko.)

that he has designated, the time the plant was built, I am satisfied that in San Francisco you will find a building permit for this plant. I presume back in 1931 they had building permits in San Francisco. If you find there was a building permit for this plant in 1931, that would pretty nearly establish the fact. If you want to verify this information, I certainly would give you time to verify it.

Mr. Sellers: Well, in this case, your Honor, we not only have had no opportunity to verify or to bring in our own witnesses. We are given, to be sure, the right to cross-examine which, while helpful at times, is not the complete answer, as your Honor knows. Here, however, I would point out to your Honor that there was a complete lack of diligence upon the part of the——

The Court: Well, I am not defending the defendant in this case on the fact that the defendant couldn't get along with his former counsel. However, I can't penalize a party because he falls out with counsel.

Mr. Sellers: Now, your Honor, I would respectfully point out to you that that is entirely an assumption upon your part in the complete absence of any evidence. [463]

The Court: I have the affidavit of Mr. White saying he couldn't get any co-operation.

Mr. Sellers: But he didn't say he couldn't get along. He said Mr. Stromberg wouldn't come in with him. He didn't say there was a difference of feeling or personal antagonism, which has been

(Testimony of Vernon Murasko.)

suggested. There is a difference, your Honor. If the defendant merely stayed home and either for one reason or another doesn't want to prosecute the suit, he may be very friendly to his attorney, but it is a different matter from personal antagonism and the fact that he is simply not diligent. Your Honor has presumed, I have noticed, that there was a personal antagonism. There is no evidence of that. I don't believe Mr. White's affidavit supports that.

Mr. Lyon: I disagree with you. Mr. White's affidavit said that he and the defendant could not agree on how this case should be defended.

Mr. Sellers: That doesn't show any personal antagonism. I would say Mr. White couldn't agree if the defendant wouldn't come in and help prepare for the trial.

The Court: It seems to me, Mr. Sellers, if I am convinced that here was a plant that was built in San Francisco in 1931, practically the same as the plant as described in your patent, which was filed in 1937, if I am convinced that there was prior use prior to the obtaining or the filing of this patent, it would seem it would be very unjust at this [464] late date to award damages on a patent that I am convinced was illegal and void from the very beginning.

Mr. Sellers: I might point out to you, your Honor, that they had all this time to go into the evidence. This patent has been before the defendant for many months, for over a year, well over a year.

The Court: That is true.

(Testimony of Vernon Murasko.)

Mr. Sellers: I would point out to you, too, that it may be a hardship upon them. Here we have a question of the equities involved, and while the patent may in fact be invalid, I would point out to you a very high percentage of patents are adjudicated invalid and yet many people have paid royalties before that holding is made.

The Court: Many times, you know, it is like paying a traffic ticket. It is easier to pay it than it is to fight it. It doesn't take as much time and effort and money.

Mr. Sellers: You don't mind if I don't agree on the record with that?

The Court: No, you don't have to agree on the record. Maybe you fight a traffic ticket if you think you are right on the question of principle.

Mr. Sellers: I would like to say yes on that, your Honor, but my principles can't afford it.

The Court: That is exactly it. I assume a lot of patent litigation, where it is alleged to be infringed, that the [465] infringer pays off rather than to go to the expense of defending a patent case, because my understanding is patent lawyers come pretty high. It is rather expensive.

Mr. Sellers: I would say from personal experience, your information is misleading, your Honor. That is a matter of personal opinion, of course.

The Court: All right.

Mr. Sellers: Well, your Honor, I know that you have a discretion here and I know you have a right to exercise it. However, I know your Honor will

(Testimony of Vernon Murasko.)

understand if we take exception to your Honor's ruling.

The Court: I have no objection to that. Every case that I decide is subject to appeal. I have absolutely no feeling one way or the other. Attorneys have a right to question my decisions and appeal, and if the Circuit doesn't agree with me, I am perfectly willing to go along with the Circuit.

Mr. Sellers: Thank you, your Honor.

The Court: But your motion is denied.

Mr. Sellers: Thank you. No thanks, but I understand.

Mr. Lyon: Do you have any questions?

The Court: Cross-examine.

Mr. Sellers: Yes. I want to examine this [466] man.

Cross-Examination

By Mr. Sellers:

Q. What was the name of your employer in San Francisco? A. Which one?

Q. The one you were employed by at the time you built the plant.

A. I didn't build the plant. I was there to help install the machinery. My employer was Bode Gravel Company or otherwise designated as Bode Mix Concrete Company.

Q. Who was the head of that plant?

A. The owner, Henry Bode.

Q. How old were you at that time? A. 28.

Q. You were 28 years old? A. Right.

(Testimony of Vernon Murasko.)

Q. This was the first experience you had had in the field of aiding and assisting in the building of batch plants, is that correct? A. Correct.

Q. It was a brand new thing to you?

A. That's right.

Q. You had had no experience with blueprints or drawings before? A. No, I did not.

Q. You were not the engineer in charge of the job. Who [467] did have charge of the job?

A. A man by the name of Harry Davis. He was Henry J. Kaiser's son-in-law.

Q. He had direct charge of this job?

A. He had direct charge of the job, of the complete installation.

Q. And by this job, how do you identify that plant? A. Alabama plant.

Q. The Aalabama Street plant?

A. That's right. Alabama, we called it.

Q. And Henry Davis had direct charge?

A. Harry Davis.

Q. How often did you see Harry Davis?

A. Sometimes he would be on the property there three or four times a week.

Q. Did he have the drawings with him when he was there? A. Yes, he did, at times.

Q. Where is Harry Davis now, if you know?

A. Dead.

Q. Who was in charge under Harry Davis in the work on that plant?

A. Various contractors. The wooden structure

(Testimony of Vernon Murasko.)

was sublet to a contractor that I don't recollect the name of.

Q. You don't remember the name?

A. No, I don't, but I do remember the name of the Scale [468] company that installed these loading hoppers, the General Pacific Scale Company at Seventh and Harrison Streets in San Francisco.

Q. The scale company installed the loading hoppers? A. That's right.

Q. They also installed the scales, did they?

A. That's right.

Q. And they also installed the beams and levers between the hopper and the scales? A. Yes.

Q. Did you see them do those things, sir?

A. Yes.

Q. Were you there at the plant every day?

A. Yes, at that time I was.

Q. The frame of this building was of wood. How tall was it? A. 90 feet.

Q. What capacity was the plant?

A. Are you speaking out output?

Q. Well, if I ask you what capacity, what would you speak of, what would you tell me?

A. In my language, the capacity of the plant is how many yards of concrete per hour it can pour.

Q. All right, how many yards of concrete per hour could it pour? [469]

A. The plant was designed for 30 yards of concrete per hour. Under my supervision we built it up to 90.

(Testimony of Vernon Murasko.)

Q. I believe you said that the hoppers were connected by bolts to the ceiling, is that correct?

A. Correct.

Q. If the hoppers were connected by bolts to the ceiling, how did the hoppers move when they were filled with material to be weighed, if they were connected with bolts?

A. The bolts actually were connected to the hopper weigh beams and the hopper was connected to the weigh beams.

Q. Yes, that is what you said.

A. Cantilever effect.

Q. But I want to know if the hopper was connected to the ceiling, how was it movable?

A. The hopper was connected to the scale beams, and the scale beams were connected to the ceiling.

Q. In other words, the hopper was not connected directly to the ceiling, was it? A. Correct.

Q. I am correct? A. That's right.

Q. How close to the ceiling were the hoppers?

A. The cement scale had a clearance of about—the cement hopper had a clearance of six inches from the bottom of the cement tank that held bulk cement. The aggregate [470] hopper had a clearance of approximately three feet from the ceiling.

Q. Were these beams to which these hoppers were connected above or below that ceiling?

A. The beams constituted the floor and the ceiling, also.

Q. All right. Then the levers to which the hop-

(Testimony of Vernon Murasko.)

pers were connected, did you say they were connected to leyers?

A. The rods were connected to the scale beams.

Q. The scale beams. Did you have two types of beams, floor beams and——

A. Well, shelf beams is the name they call that part of the scale.

Q. It didn't support the floor, did it?

A. No.

Q. Well, you had a ceiling above the——

A. A ceiling above the two hoppers constituted the floor of the aggregate bins above the two weighing hoppers.

Q. I see, and the ceiling or floor had its own beams, didn't it? A. It did, yes.

Q. All right. Now, were these hoppers connected to the beams of that ceiling or connected——

A. No. They hung in an opening.

Q. Hung in an opening? [471]

A. In an opening in the floor. They did not hang. They were suspended above the opening in the floor.

Q. My question to you is the scale beams, were they positioned above or below the ceiling or floor which is above the hoppers?

A. The scale beams were positioned above the floor of the batching hopper room, but they were positioned horizontal to the cement hopper and the aggregate hopper, and the beams of that scale were connected to the ceiling by bolts.

The Court: Mr. Sellers, I wonder if I could in-

(Testimony of Vernon Murasko.)

terrupt just a minute. I have got something on my mind I want to get straightened out if I can before the morning recess.

Mr. Sellers: Yes, your Honor.

The Court: What is the date of the patent? Is it the date when it is filed?

Mr. Sellers: When it is issued, your Honor, when it is granted or issued.

The Court: When was this issued?

Mr. Sellers: It is in the upper left-hand corner there, your Honor.

The Court: In the patent?

Mr. Sellers: Yes, in the drawing.

The Court: Oh, I see. November, 1938?

Mr. Lyon: That is correct, your Honor. The filing date was February 10, 1937. [472]

The Court: I saw the filing date.

Mr. Sellers: But November 29, 1938, was the date it was granted.

The Court: Then it would expire November 29, 1955.

Mr. Sellers: Expired November 29, 1955.

The Court: I have been misled by the pleadings in this case and also by the pretrial memorandum.

Mr. Sellers: I am terrifically sorry. There was no intention of doing that, I assure you.

The Court: I have been misled, I don't say there was any intention, by your pretrial memorandum. Of course, it was filed in July.

Mr. Sellers: At that time the patent had not expired.

(Testimony of Vernon Murasko.)

The Court: At that time the patent had not expired. Now, the defendant filed a pretrial memorandum.

Mr. Sellers: He filed his just about a week ago.

The Court: That's right, on March 7th.

Mr. Sellers: Of this year.

The Court: Yes, March 7th of this year. The defendant doesn't say anything about that the only issue is the question of damage. Not only that, the defendant says the only issues presented in this action are the questions of the validity of claims 1 and 5.

Mr. Sellers: Well, your Honor——

The Court: Then you filed a reply on March 12, and you [473] don't tell me in your reply of March 12 that the patent has expired and the only thing you are asking for is damages.

Mr. Sellers: Your Honor, had I thought that was important to you, we would certainly have said it, but frankly our reply brief was directed only to the points raised in the brief of the defendant. I don't see at this time just why that concerns your Honor.

The Court: Maybe I made a mistake in not allowing you to make an opening statement. Maybe in your opening statement you would have told me that the patent had expired.

Mr. Sellers: Very willingly, your Honor, because the only difference, as I see it, is whether or not you would grant an injunction. The question of validity is still in issue, and it is in issue whether

(Testimony of Vernon Murasko.)

the patent has expired or not. The only difference is whether or not, having expired, we would no longer ask for an injunction, but that is not really at issue. I don't see that we have misled you upon any material point.

The Court: I am not saying that you have misled me deliberately or intentionally. I am saying that I have been misled because as a general rule before I start the trial of a case I read the pretrial memorandums.

Mr. Sellers: Yes.

The Court: And try to read the cases to determine what the issues are, and when I come out here and say that I have [474] read your memorandum and know what the issues are, I am relying on what is in the file, not on something that happened outside the file.

Mr. Sellers: Nothing has happened outside the file.

The Court: Except that the patent has expired.

Mr. Sellers: There is nothing we could do about that. Our pretrial brief was filed a year ago, last July, and we almost went to trial then, and then the trial coming off now at this time, we didn't file another pretrial memorandum, but opposing counsel did, so his was nearer up to date than ours, and in our reply brief, we only covered the points he mentioned. But I state to you honestly that I don't think the fact that the patent has expired would change the procedure one iota. I don't see why it should.

The Court: Mr. Lyon, when you filed your pre-

(Testimony of Vernon Murasko.)

trial memorandum, did you know the only issue was the question of damage?

Mr. Lyon: Yes, I did. I did not realize that the court was laboring under the apprehension that the patent was still in force.

The Court: I didn't pay much attention to the date of the patent. I assumed that the patent was in force and here was the customary patent litigation in which you are trying to establish the validity of a patent.

Mr. Lyon: I agree with Mr. Sellers in that respect [475] insofar as the validity of the patent is concerned. I don't think the relief that is potentially available has anything to do with it. Possibly it does. The court will make up his own mind there. I should have called your attention to that, but I didn't do it. Frankly, I took a look at it and I didn't realize the court wouldn't see the same thing.

The Court: Well, I don't know if it makes any particular difference as far as the case is concerned, or the outcome of the case, but I do like to keep my eye on the goal we are trying to reach.

Mr. Sellers: But don't you see, your Honor, whether or not you would grant us an injunction, assuming our patent was still alive, would depend on whether or not we asked for it. We might try this case exactly the same way with the patent unexpired and you would give us damages, and if we asked for an injunction, possibly you would give that to us, too.

The Court: But the only thing I have before me

(Testimony of Vernon Murasko.)

is the prayer of the complaint in which you ask for a preliminary and final injunction.

Mr. Sellers: Well, at that time we were entitled to it, but due to the delay, we can no longer get it. I am sorry I didn't cancel that prayer, your Honor, but I don't think that the trial of this case would have varied one iota from what it has.

The Court: I don't think it would, either. I guess I [476] have learned something. Hereafter I better take a look at the expiration date.

Mr. Sellers: I do apologize, your Honor. I think probably Mr. Lyon or I, incidentally, would probably have mentioned the patent had expired, although I am not sure, because I didn't attach much importance to it.

Mr. Lyon: That is going to be my first remark in the concluding argument.

Mr. Sellers: I knew you were going to make a good speech.

The Court: Well, I wanted to be sure. I am not saying that this—what I am trying to say is this is a natural mistake that could happen in any litigation and I don't want anyone to think from what I have said that I am criticizing either attorney or the litigants because I think the court is as much at fault as anybody else.

Mr. Sellers: I am very sorry.

The Court: I think the court is more at fault than anyone else, because I should have allowed you to make an opening statement, but I assumed all the issues had been presented and all the material

facts and issues had been presented in the allegations of the complaint and the pretrial memorandum, and all that we are trying to do here is to present the evidence to sustain the allegations.

Mr. Sellers: But, your Honor, I do repeat, because I am [477] afraid you don't quite see the picture on this point, that is, you still have to sustain the validity, whether it has expired or not. How can you award damages if you don't sustain the validity?

The Court: Well, I will have to sustain the validity up to the date of expiration.

Mr. Sellers: That is true, your Honor, but the testimony here all goes back years before that. What happened since the expiration doesn't get into this picture.

The Court: Well, we will take our morning recess now. We will recess until 10 minutes after 11:00.

(Recess.)

The Court: You may proceed.

Q. (By Mr. Sellers): Is that the first plant that you had ever seen of the type having the cement hopper in the center between the portions of the aggregate hopper? A. It was not.

Q. You had seen plants like that even earlier?

A. I had, in 1930.

Q. Where had you seen that?

A. In San Francisco. The plant was located at Geneva Avenue and Tara Street.

(Testimony of Vernon Murasko.)

Q. By whom was that plant owned?

A. By the same company, Bode Gravel Company or Bode Ready-Mix Concrete. [478]

Q. They had two plants, I take it, of the same type, after they built this one?

A. Two plants that accomplished the same purpose, constructed a little differently.

Q. Did the same manufacturer or builder build both plants?

A. The wooden structure was built by the company that owned the Bode Gravel Company. The cement hopper and aggregate hopper were built by the Western Pipe & Steel Company of South San Francisco.

Q. When were you first contacted in this matter? By whom? A. In what way?

Q. I want to know who made contact with you to come here to testify in this case?

A. Mr. Stromberg of the California Batching Company.

Q. How long have you known Mr. Stromberg?

A. Oh, I have known him probably for three years, probably have met him three times in three years.

Q. You are engaged in business at the present time here in Southern California?

A. That's right. I am not in business. I am working for the Western Concrete Company.

Q. Do you have business contacts with Mr. Stromberg? A. No, I don't. [479]

Q. Social contacts? A. No, I don't.

(Testimony of Vernon Murasko.)

Q. How did Mr. Stromberg happen to know you had contact with this type of plant?

A. Well, he is a competitor of the company that builds plants, fabricates them for the Western Concrete Company, and he is in there looking for business and speaking to responsible people working there that may help him.

Q. Did he ask you if you ever knew of a plant like that some time ago? A. No, he didn't.

Q. How did you happen to tell him?

A. Well, that would entail a story. I can't give you an answer on that.

Q. Well, can you make the story short?

A. Mr. Stromberg contacted a man who used to work for me from 1934 to 1942, when I left San Francisco, that operated this plant after I had left, and probably for six years before I had left there. He was called down here for a witness for Mr. Stromberg and happened to mention my name. It happened Mr. Stromberg happened to know me. I have not seen this gentleman in particular for three years. I have seen him twice since 1942.

Q. What was his name?

A. Ed Cornett. [480]

Q. Where is he now?

A. Present in this room.

Mr. Lyon: He will be our next witness.

Mr. Sellers: Thank you.

Q. This plant was operated by you for what period of time?

A. 1931 until I left in 1942, May.

(Testimony of Vernon Murasko.)

Q. Did it operate satisfactorily during that entire time? A. Very satisfactorily.

Q. You rather prefer the type of plant having the central cement between the aggregates?

A. Not necessarily, personally.

Mr Sellers: That's all, your Honor. Your Hon r, may I at this time say that in making my motion to strike, I said 28 U.S.C. 282, rather than 25 U.S.C. May I correct that?

The Court: It may be corrected.

Mr. Sellers: Thank you.

Mr. Lyon: That's all.

The Court: You may step down.

(Witness excused.)

The Court: Call your next witness.

Mr. Lyon: Mr. Cornett.

Your Honor, I didn't get this marked and put in [481] evidence. Can I recall the witness?

The Court: No, you don't have to do that.

Mr. Lyon: He has already identified it. May I have this marked next in order?

The Court: It may be marked.

The Clerk: For identification?

The Court: No, in evidence.

The Clerk: Exhibit E.

(The exhibit referred to was received in evidence and marked as Defendant's Exhibit E.)

Mr. Sellers: I wish to object to that, your Honor, as being part of the record of the testimony of a witness who should not have testified in our opinion.

The Court: Overruled.

Mr. Sellers: I would also like to object to it upon the further ground that—no, I cancel that.

E. F. CORNETT

called as a witness by and on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name, please?

The Witness: E. F. Cornett.

The Clerk: Will you spell your last name?

The Witness: C-o-r-n-e-t-t. [482]

Direct Examination.

By Mr. Lyon:

Q. What is your age, Mr. Cornett? A. 53.

Q. What is your present occupation?

A. I am working for M & K Corporation on a skiploader.

Q. Where is that organization located?

A. In San Francisco.

Q. Who was your employer in 1929?

A. In 1929 I was working in the foundry business.

Q. And in 1930?

A. 1930, the latter part of 1930, I went to work for Bode Gravel Company.

Q. How long did you work for the Bode Gravel Company?

A. Well, I worked there for approximately a year, and we were off during the depression. I come back in the latter part of 1932.

(Testimony of E. F. Cornett.)

Q. What did you do in 1932? What were your duties?

A. I was driving a truck for a while.

Q. How long did you drive a truck, sir?

A. Approximately two years all told.

Q. At the conclusion of your truck driving, what duties did you then undertake?

A. I was broken in as plant operator.

Q. At what plant, sir? [483]

A. The Alabama Street plant.

Q. What year was this? A. 1933.

Q. 1933. How do you fix that year, sir?

A. Well, I know the year. I couldn't give you the exact month or date, but I know the year I went into the plant.

The Court: How do you know it?

Q. (By Mr. Lyon): How do you fix it as 1933?

A. Because I absolutely know it.

Q. Was there any construction work or anything of that type going on around the area which would help fix your memory on that?

A. I think I could recall the Federal Building about that time being built.

Q. The plant that you were operating in 1933, that was this Alabama Street plant?

A. That is correct.

Q. How much of your time was spent operating that plant? A. 1933 to 1947.

Q. Continually? A. Yes, sir.

Q. Did you have other duties besides the operation of this plant? [484] A. No, sir.

(Testimony of E. F. Cornett.)

Q. That's all you did do, was operate the plant?

A. That's right, a plant operator.

Q. How was the Alabama plant constructed with reference to its aggregate hopper and its cement hopper?

A. We had a large aggregate hopper and we had a center cone with a cement scale inside the center cone to protect the cement scale.

Q. What weighing mechanisms were used?

A. You mean the scales?

Q. Yes. A. We had cumulative weights.

Q. Did you have more than one?

A. We had a cement scale plus the aggregate scale.

Q. You had one scale attached to the cement hopper and a second scale attached to the aggregate hopper? A. Yes.

Q. Was the cement hopper positioned physically within the aggregate hopper? A. Definitely.

Q. I show you Defendant's Exhibit E, which is a sketch made by Mr. Murasko, and ask you if in accordance with your recollection that is an accurate sketch of the Alabama plant?

A. It is about as accurate as you could make it.

Q. Would you have any changes or corrections you would [485] like to make to that?

A. No. I wouldn't, because it is exactly as he drew it. I know it very well from memory because I have done plenty of repair work on it.

Q. Have you ever helped reconstruct this plant?

A. Just repair work.

(Testimony of E. F. Cornett.)

Q. What do you mean by repair work?

A. If something would wear out or something would go wrong.

Q. Did the cement hopper, for example, ever need replacement?

A. No. We never had to replace the cement hopper. We repaired the lower gates, slide gates, several times.

Q. The gates at the bottom of the hopper?

A. Yes. It would wear a little bit and that would be a replacement there.

Q. Would you do that replacement yourself?

A. We would generally have a welder in and I would assist him.

Q. So you have watched him actually get down in there and put the gate on the bottom of this cement hopper? A. Right.

Q. Would you describe for me the operation of the Alabama Street plant during the charging and the batching of cement? [486]

A. Of cement?

Q. Of concrete. Pardon me. Using this drawing as a basis for illustration.

A. Well, we would weigh up our water.

Q. Where would you weigh that water?

A. We had a regular water valve there and we would weigh it on the aggregate scale.

Q. Yes, but whereabouts on this drawing, what element? A. It would be right over in here.

Q. At G?

A. He hasn't got the way the valves are fixed.

(Testimony of E. F. Cornett.)

Mr. Sellers: I suggest he let the witness answer the question.

Mr. Lyon: He has been pointing at it and all I am doing is get him to——

The Witness: It is right here.

Q. (By Mr. Lyon): How is that designated on the drawing, what letter? A. G.

Q. After you have poured the water in there and weighed it, what is the next step?

A. You hit your cement button and you would start weighing aggregate.

Q. Just a moment. We don't know as much about these plants as you do, so if you can describe it in language that [487] we can understand, it will help.

A. You push your cement button and your cement would start being weighed.

Q. Where is your cement beforehand?

A. It is up in the tank above the center hopper.

Q. Is that on this drawing?

A. Right there.

Q. That is designated what? A. H.

Q. So you would open the hopper H and permit your cement to flow? A. Yes.

Q. And it would flow down where?

A. Into the cement scale.

Q. The cement hopper? A. Yes.

Q. And that is designated on this drawing what?

A. B.

Q. That is the gate. A. D.

Q. Now, at the same time or at a different time.

(Testimony of E. F. Cornett.)

would you empty aggregate into the aggregate hopper?

A. At the same time the cement was being weighed, you could also weigh your aggregate.

Q. Each one of these hoppers weighed independently of [488] the other? A. Yes, sir.

Q. They were suspended from their own separate scales? A. That is correct.

Q. When you had the appropriate amount of cement in the cement hopper and the appropriate amount of aggregate in the aggregate hopper, then what would you do?

A. You would throw your water valve, let your water start running in the mixer, and naturally your mixer is turning over, and then you would open your aggregate gate, and as soon as your aggregate started flowing, you would open the cement gate and the cement would go down the chute into the mixer.

Q. Now, during the discharge of the mechanism, what was the disposition of the cement with respect to the aggregate, if you understand what I mean?

A. It flowed right down with the aggregate.

Q. Flowed in the middle of it?

A. Right about the middle of it.

Q. So that the shaft of cement that was discharged was surrounded completely with aggregate?

A. That's right, at the bottom of this hopper you would have a big V chute that went down into the mixer. It was wide at the top and narrowed down, and the cement would hit it about three-

(Testimony of E. F. Cornett.)

quarters of the way up and go right in with [489] the aggregate.

Q. And this was the condition in which the plant was operating in 1933 when you assumed it?

A. That's right.

Q. It has operated in that fashion until when?

A. Until 1947.

Q. What happened in 1947 to the plant?

A. It started to disintegrate and they decided not to rebuild. They made other arrangements for procuring their cement, so they just naturally tore it down.

Q. You have no idea where the remnants of this plant are at the present time?

A. They went to the junk yard as scrap.

Q. Were you familiar with any other plants similar to this prior to 1937?

A. Yes. We had a plant at Geneva and Tara.

Q. Was that constructed in the same manner as this? A. A little differently.

Q. How was this constructed differently?

A. Your cement scale, instead of being right in the center, was more or less to the side, but it was inside the aggregate hopper. Don't ask me to make a drawing. I can't draw.

Q. Can you do this well?

A. I don't know. [490]

Q. Can you try? Give me an outline.

A. We had a hopper like this, see, and then your cement scale was just anchored inside like

(Testimony of E. F. Cornett.)

this, and you had a gate here and you proceeded with the same operation identically.

Q. It operated in the same way?

A. Yes. The only thing is your cement scale was off to one side, and instead of being a cone shape, it was more or less a box shape. It come down in a V to empty out, you know. It was a scale within a scale like this one.

Q. Or a hopper within a hopper, rather?

A. Or a hopper within a hopper.

Q. The scales are outside the aggregate hopper?

A. No. In both plants the scale was inside the aggfegate hopper.

Q. The cement scale was inside?

A. The cement hopper was inside the aggregate hopper.

Q. I am talking about the scales.

A. Oh, the scales. They would be outside and you would be standing alongside your bank of valves facing the scales.

Q. And from one scale the cement hopper was suspended and from the other scale the aggregate hopper was suspended? A. That's right.

Mr. Lyon: That's all. [491]

Cross-Examination

By Mr. Sellers:

Q. You worked in this one plant from 1933 to 1947? A. That's right.

Q. Did you ever take any pictures of it?

A. I had no reason to take any pictures.

(Testimony of E. F. Cornett.)

Q. No reason to take pictures. Have you worked in any other plant since that time?

A. No. I got out when they tore down the plant, I got out of the cement business and went in outside construction.

Q. Isn't it a fact that while you were there you were working with or under the preceding witness?

A. That is correct. He was my superintendent.

Q. Did that plant work satisfactorily?

A. Very much so.

Q. You fixed the date at 1933?

A. That is correct, when I started to operate.

Q. When you started to operate. How did you fix 1933? Couldn't it just as well have been 1934 or 1935?

A. No, because there is no way for me to explain or tell you, but I absolutely know it was 1933.

Q. Well, what else do you know happened in that particular year?

A. That was the start of the Federal Building, wasn't it, in 1933, in San Francisco? [492]

Q. I don't know. What other buildings started that year?

A. I don't remember. I was just the mixer man upstairs and I had nothing to do with any other part of the business. They would call for a mix and I would mix it up, and that's all I know.

Q. Well, you were putting out cement or concrete, but when was this? In other words, how do you know that it was 1933, or maybe it was 1930? How can you be sure it wasn't in 1930?

(Testimony of E. F. Cornett.)

A. Because it wasn't. The plant wasn't built in 1930.

Q. When was it built? A. 1931.

Q. How do you know that?

A. I was driving a truck.

Q. What is there about 1931 in particular that you can fix in your memory?

A. I knew they were building this plant, but I had nothing to do with it.

Q. You were driving a truck in 1930, weren't you? A. Part of it.

Q. In 1929?

A. 1929, I was in the foundry business.

Q. What were you doing in 1932?

A. I worked part of that year with the Bode Gravel Company, [493] and I went with the U. S. Engineering Department for six months, because things were pretty tough, and I had an opportunity to go with the U. S. Engineers Department on the dredge McKenzie.

Q. Where was that located?

A. In San Francisco being repaired. We went up to Aberdeen, Washington, to dredge.

Q. You know that happened in 1933?

A. No. 1932.

Q. Could it have happened in 1933?

A. When I come back off the dredge, that is one reason I can say it was 1933. I was gone six months and I came back and worked for Bode.

Q. You were gone six months?

A. That's right.

(Testimony of E. F. Cornett.)

Q. How do you know that that six months you were on the dredge was in 1933? A. 1932.

Q. I beg your pardon.

A. 1932. Because I have a discharge to prove it, but I don't have it with me.

Q. Do you have anything else that might be used to prove it, was in 1932 that you were on the dredge? A. My discharge will prove it.

Q. Anything else? [494]

A. Oh, if you would get hold of the first assistant engineer on the dredge McKenzie, he would verify it.

Q. In addition to that, is there anything else that would tend to fix 1933 in your mind as the time when the plant was built?

A. When the plant was built?

Q. Yes.

A. I was driving a truck when the plant was being built in 1931.

Q. I beg your pardon. You went to work at the plant?

A. I went to work at the plant as the mixer man, as an operator, in 1933.

Q. Anything else to fix that date?

A. I just come in off that dredge and went back to work for Bode Gravel.

Q. Anything else? A. That's all.

Q. You have nothing to establish the date on which you were on the dredge other than the discharge, which you don't have with you?

(Testimony of E. F. Cornett.)

A. No.

Q. What were you doing in the year 1934?

A. I was operating the mixer.

Q. What were you doing in addition to operating the mixer there? Did you have any other activities? Did you [495] go anywhere, take any trip?

A. Not that I recall.

Q. How about 1935? When was the World's Fair in San Francisco? Didn't they have a fair about that time? A. 1939.

Q. Did you go anywhere in 1936?

A. Yes. I took a month off and I went to British Columbia.

Q. In 1936? A. That's right.

Q. How do you fix that as 1936 and not 1935?

A. Because I know it was 1936. I didn't keep my steamship tickets to prove it, but I know it was 1936.

Q. And in 1937 where were you?

A. I was working for Bode Gravel.

Q. What did you do in addition to working for them? A. Nothing.

Q. Did you take any trips that year?

A. No, sir.

Q. Are you sure that the trip you took couldn't have been in 1937 and not in 1936?

A. It was in 1936 when I made the trip to British Columbia.

Q. You believe you remember that, but what can you tie it up with that we know happened? [496]

A. I took a month off and took a trip.

Q. While you were on that trip, did anything

(Testimony of E. F. Cornett.)

happen that the public in general would know or that you could verify?

A. You could verify it by the then mayor of Vancouver, who was my uncle.

Q. Well, what happened to the mayor of Vancouver at that time, what happened?

A. He entertained us.

Q. He detained you?

A. He entertained us.

Q. Oh, entertained you. Was that Vancouver, British Columbia? A. B. C.

Mr. Sellers: Well, I don't know, your Honor, whether that makes that a public record.

Q. Outside of these trips which you took, which you simply remember the date you took them, you have nothing else to pinpoint the time you went to work at this plant? A. That's right.

Q. Prior to the time you went to work there, you had never seen the interior of the plant, you didn't know how it was made? A. No.

Q. Your knowledge of its construction came beginning in [497] 1933? A. That is correct.

Q. And you were there from 1933 to 1947. That was a long time, wasn't it?

A. That is correct.

Q. That would be a total of 14 years.

A. Right.

Q. Did you ever figure up it was 14 years?

A. Did I ever figure it up?

Q. Yes, did you ever stop to figure you worked on that one job for 14 years?

(Testimony of E. F. Cornett.)

A. That's easy to figure. There is no point in trying to remember it. The main thing is I was getting paid.

Q. Well, I appreciate that, but I mean had you ever said to anyone yesterday or the day before, "I was with that company 14 years when I left"? Had that 14 year figure ever stood out in your mind?

A. Oh, yes, but I don't remember bragging about it.

Q. Who did you ever tell you were with the company for 14 years?

A. I don't remember telling anyone especially. Mr. Murasko can verify it.

Q. When did Mr. Murasko leave that plant?

A. I think it was 1942.

Q. He left in 1942? [498]

A. I think that was the date.

Q. So during what period of time would you have been working with Mr. Murasko?

A. Well, from 1933 on as plant operator, until he left the company.

Q. Between the years 1933 and 1942, you and he were at the same plant? A. Yes.

Q. You are familiar with the gate at the bottom of the hoppers in that plant, were you?

A. Yes, sir.

Q. Now, referring particularly to the aggregate hopper, what kind of gate construction did you have there? A. A knife type gate.

Q. A knife type gate?

A. Sliding gate, flat sliding gate.

(Testimony of E. F. Cornett.)

Q. It was a gate that slid horizontally from one side to the other?

A. Just worked back and forth on an air ram.

Q. Was there more than one gate in the bottom of the aggregate hopper? A. No, sir.

Q. Just one gate? A. That's all.

Q. Did it cover the entire bottom of the aggregate hopper? [499] A. No, sir.

Q. Just one gate? A. That's all.

Q. Did it cover the entire bottom of the aggregate hopper? A. Yes, sir.

Q. How many gates did you have on the cement hopper? A. One.

Q. That was positioned above the position of the aggregate hopper gate?

A. That's right.

Q. Centrally of it? A. That's right.

Q. I believe you said, Mr. Cornett, that the cement would hit the aggregate three-quarters of the way up, were those your words?

A. I beg your pardon?

Q. Did you say that the cement would hit the aggregate three-quarters of the way up?

A. Approximately three-quarters of the way up from this back chute as it would be entering the mixer.

Q. What did you mean by that?

A. Well, you had a chute under this scale hopper going into the mixer, and naturally you wouldn't have it right at the bitter edge. You would want a

(Testimony of E. F. Cornett.)

little leeway for spillage, [500] so it would hit approximately three-quarters of the way.

Q. Well, wait. Didn't the aggregate—how wide, looking at this drawing that you have before you here, Defendants' Exhibit E, do you remember how wide was this hopper from one side to the other? I am referring to the aggregate hopper.

A. Offhand, I don't remember. It was quite a good sized hopper, but I never took the trouble to measure it.

Q. Was it five feet wide?

A. It was more than that.

Q. Was it 10 feet wide?

A. Approximately eight.

Q. Approximately eight feet wide?

A. I would say approximately eight feet wide.

Q. If it was eight feet wide, how wide was it in the other dimension? A. The same thing.

Q. It was a square hopper?

A. A square hopper.

Q. About eight feet on each side?

A. Right.

Q. Now, how big was the gate at the bottom of the hopper, the discharge outlet?

A. I knew I measured it lots of times, but I don't remember offhand the exact measurements of it.

Q. You measured it a lot of times? [501]

A. Oh, yes. We had to replace it when it would wear, but offhand I don't remember the measurements.

(Testimony of E. F. Cornett.)

Q. You had baffles inside of your outside aggregate hopper, according to this drawing?

A. Right.

Q. And they extended down almost to the sliding gate, did they not?

A. Yes, somewhere along in that spot there, so that the aggregate could by-pass.

Q. You mean as shown here they extend too far?

A. No.

Q. They extended down just about as far as in this drawing? A. That is correct.

Q. Now, did you have any chance for the aggregate to collect in the bottom of this hopper above the gate? Did that happen?

A. You mean the aggregates collected at the cement gate?

Q. No, collecting above the aggregate gate and below the cement gate, did that happen in your construction? A. Oh, yes.

Q. In other words, you formed a body of aggregate across above the gate?

A. That's right. [502]

Q. Is that the way it worked? A. Yes.

Q. And then when this was discharging, about how wide, if you remember, were the actual passages through which the aggregate went down?

A. The bottom was about a foot and a half.

Q. A foot and a half wide on each side of the cement hopper? A. That's right.

Q. Did you ever notice whether or not the aggregate in discharging down from the aggregate

(Testimony of E. F. Cornett.)

hopper from the two sides would actually come together to form a solid stream of aggregate? Did you ever notice that?

A. Oh, yes. It would come out as a solid stream.

Q. Where did you stand when you saw that?

A. I have been there—I have been relieved lots of times and lots of times we would have to go right through lunch on certain jobs and I could stand and watch the operation on my relief.

Q. Was the fall of the aggregate in the cement in a position exposed so you could see it from the outside? A. Yes.

Q. All you saw from the outside was the falling aggregate. You didn't know whether it was extending clear across or not, did you? [503]

A. Sure.

Q. How did you know?

A. Because I had eyes.

Q. But if you are looking at a wall of aggregate falling, can you be sure that that wall is solid for one foot or for four feet?

A. Solid for the full width of that hopper.

Q. How did you know that?

A. Because I observed it.

Q. You observed it as it was falling, but you were at the side of the aggregate fall, weren't you?

A. I was behind it.

Q. You were behind it? A. That's right.

Q. You were off to one side?

A. I was right behind it as it went straight down.

(Testimony of E. F. Cornett.)

Q. Behind it, off at one side about on the same horizontal level?

A. I was standing on the platform there and you could see it go down very plainly.

Q. Well, what I want to learn is whether or not the cement falling out from your cement hopper fell into the streams of aggregate falling from the aggregate hopper?

A. No, it did not.

Q. It did not? [504]

A. It went directly into the mixer.

Q. The cement fell down between the streams of aggregate into the mixer?

A. That is correct.

Q. How far was it between the stream of aggregate and the stream of cement then?

A. What do you mean, how far?

Q. What was the distance? Was it one foot or two feet or three feet or what was the distance?

A. They came out together.

Q. Oh, I beg your pardon.

A. The cement fell right down in here and came out with the aggregate.

Q. They came out together, but you have said now that the stream of aggregate upon the two sides of the cement were spaced from the stream of cement and that it came down between the two streams by itself.

A. You would open this aggregate gate first, leaving a void for the cement to come through on.

(Testimony of E. F. Cornett.)

Q. All right. Now, my question is, we have two streams of aggregate coming down from these two sides? A. That's right.

Q. All right. Now, we have two streams of aggregate coming down like this, and then spaced in between the streams of aggregate we have a stream of cement, is that correct? [505]

A. No. The aggregate would come down and spread out in this chute and your cement fell directly on the aggregate.

Q. As I understand what you just said, the aggregate comes out the bottom of this side over here and falls down, and the aggregate comes down the bottom of this side over here and falls down, and the cement falls down between the two, but the cement, you have said, does not fall into the aggregate, it falls down between the two, is that right?

A. You open this gate first and your aggregate comes out and spreads into the back chute, and then you open your cement gate and the back chute is full of aggregate and the cement goes right down into it.

Q. All right. When it gets down there into the back chute, or whatever it hits down here, they all fall together? A. Yes.

Q. I am referring to right here, before they hit anything, without falling down here, they haven't hit anything yet, the aggregate is falling down on both sides and the cement is falling down in the

(Testimony of E. F. Cornett.)

center. Now, my question is whether or not the cement falls or strikes the aggregate or whether, as you have said before, you don't have two streams of aggregate with the cement positioned in between the two.

A. As I have explained, your aggregate is spread out on the chute.

Q. No, no. [506]

A. Your aggregate is spread out on this back chute and the cement follows right through with it, to make a——

Mr. Lyon: Your Honor, may we have one counsel interrogating the witness instead of two?

The Court: I assume that is proper.

Mr. Sellers: May I talk to counsel, your Honor?

The Court: Yes.

Mr. Sellers: I don't believe he has been asking any questions.

Mr. Lyon: No, but I think his presence might make the witness uneasy.

Mr. Sellers: Thank you.

Q. We have four compartments. It has been described that the aggregate compartment, aggregate hopper, is comprised of four separate compartments, is that correct?

A. Yes, with fins in there for the reinforcement.

Q. Four aggregate hoppers. As a matter of fact, then, these walls that divided these four hoppers were down here at the side. This is one of the walls we see right here. That means if there was aggregate in this one side over here and you discharged—

(Testimony of E. F. Cornett.)

well, let me ask you. Did you always discharge these four hoppers simultaneously? A. Yes.

Q. All four aggregate hoppers simultaneously?

A. Yes, sir. [507]

Q. Why did you discharge them at one time?

A. Because they all went in at one time. You might put in one size at one time and put in another size at another time, and one size at another, and they all go to make the concrete.

Q. I see. Where did you have your sand here, in which hopper? A. Right here.

Q. The hopper over in the corner, this hopper?

A. No. That diagram is the top view of the hopper.

Q. All right. This is the top view of the hopper. I am looking at the top view of the hopper. What is in the hopper that I am looking at the top view of right here, this hopper?

A. That is where the aggregate is, your rock, sand——

Q. What is in this section over here?

A. That is rock or sand, either one.

Q. Wouldn't you put sand in one and rock in the other? A. That's right.

Q. Then we could put sand here and rock here and sand here and gravel here, is that the idea?

A. Yes.

Q. And cement in the center?

A. That's right.

Q. Do I understand that these all came down and rested [508] upon the single gate here at the bot-

(Testimony of E. F. Cornett.)

tom, is that correct? A. That is correct.

Q. Then when you would open that gate, it would all go down together?

A. That's right.

Q. I have a pencil here with red, if I may add to Mr. Lyon's Exhibit E. Would you please, with this red pencil, make a mark down wherever you believe the cement would strike the aggregate. You have said the cement would fall into the aggregate. Where would that be?

A. Right in the center, coming right down through the center.

Q. It comes down through the center. Is the aggregate over in the center, too? A. Yes, sir.

Q. Or didn't you say the aggregate fell down the stream here, and the stream over here, with the cement in between?

A. They spread out in a chute and there is one wide pattern.

Q. Well, wait a minute. This is right below the gate, isn't it? Isn't the chute you are talking about a chute spaced down below a ways?

A. Yes.

Q. Let's not go down to that chute. Let's stay at the gate. [509]

A. The chute is far enough that it takes the fall and spreads.

Q. Let me see whether or not this would help any. Here is the outside hopper and here is the cement hopper, let us say. Isn't it a fact that you

(Testimony of E. F. Cornett.)

have down below here a hopper in which this falls, a chute which goes something like this, and the gravel and rock and the cement fall down into this chute and this is where they mix, is that correct?

A. That is where they come to the mixer.

Q. Yes: This is where they first strike. In your construction, did they strike up here at the top? Did they intermingle or mix right here at the gate?

A. Not until the chute.

Q. Not until they hit way down here?

A. Yes.

Q. So in the construction of your plant, the actual mixing of the cement and the aggregate took place at a point I am going to mark X on this drawing I have just made, is that correct?

A. That's right.

Q. Now, how steep was the slope of these side walls here? I am going to mark the outside walls of the aggregate hopper Y.

A. Offhand, I don't remember.

Q. Well, you remember everything else about this, why [510] don't you remember that?

A. I don't remember the pitch of them. They were pitched, but I don't know exactly the pitch.

Q. But stop and think about it now.

A. I can't answer the question.

Q. You just don't know how steep they were?

A. That's right.

Q. And the cement was in the center, so let's assume the outside walls of this aggregate hopper are just about as I have shown them in this drawing. Is

(Testimony of E. F. Cornett.)

that about right? A. Not quite right.

Q. How would you like to change it?

A. They are more like this. They come down and they curve in here.

Q. About what pitch do you say they would be? If you didn't have the drawing in front of you, what pitch would you say they should be?

A. I don't know what the pitch is.

Q. Can you indicate on my drawing here how they should be arranged, what angle?

A. That is not a drawing of it at all.

Q. Not even a diagrammatic showing?

A. No.

Q. We will make it a little more complete. We will put a gate down here at the bottom. Here is your gate, which I [511] will label G, and we will put a gate here at the bottom of the cement hopper, which I will label H, and we will label the interior cement hopper J. Now, do you recognize that as being—well, I will run these baffles a little bit further. Do you recognize that as being, something which would be considered an aggregate hopper on the outside here and a cement hopper J on the inside there?

A. It is not designed like that drawing.

Q. It is not designed like that?

A. Not the aggregate hopper.

Q. How would you like to change it?

A. (Indicating.)

Q. You have marked another line. The line you have just put on I will mark K and run two lines

(Testimony of E. F. Cornett.)

up to the reference character K to indicate two lines. Well, do I understand that the bottom of the aggregate hopper then extended almost flat across to the gate?

A. No. I got it a little bit too much. It would come down on an angle.

Q. On an angle.

A. To freely empty the hopper.

Q. To freely empty the hopper, but you have stated that the—you have stated both ways, I believe—no, you have been consistent. You have said that the cement coming out of the cement hopper would not mix with the aggregate coming out [512] of the aggregate hopper until they strike at the point X down here, is that correct?

A. Correct.

Q. So that up here in the hopper itself, at the discharge of the, shall we say, the hoppers, there is no mixing action takes place up there? Is it not also a fact that in the operation of this unit you would frequently discharge the aggregate into the weighing receptacle down here, which I shall call L, and put that reference character on it—is it not a fact that you would frequently discharge the aggregate down into L, and then after it has reached down to L, then discharge the cement on it?

A. Alway did that.

Q. That is the way you always did it. Why did you always do it that way?

A. So that your cement wouldn't stick up on this chute here. You would have a flow of cement

(Testimony of E. F. Cornett.)

on your aggregates. You always open the aggregate gate first.

Q. Let your aggregate out, and then you let the aggregate collect at the chute at the bottom?

A. Yes.

Q. After it had all fallen out, then you——

A. Not all.

Q. How much? A. Very little. [513]

Q. How much?

A. Oh, it would be—say if you are batching two and a half yards, maybe let a quarter yard go down before you tip your cement gate, just enough to cover it so that the cement would stick to it.

Q. In other words, you partially discharge your aggregate hopper up here and then having partially discharged it, thereafter you open the cement, and do I understand you to say that you didn't completely discharge the aggregate before you discharge your cement? A. That's right.

Q. You don't want to say that now?

A. No, a small portion of it.

Q. A small portion of it, and therefore as far as the latter portion is concerned, the two of them went down together?

A. That is correct.

Q. But the fact was that the cement was spaced between the lines of flow of the aggregate and the mixing action took place down in the collector hopper or the chute down below?

A. That's right.

Mr. Sellers: I would like to mark this drawing

(Testimony of E. F. Cornett.)

that I have made rather crudely as Plaintiff's Exhibit No. 20.

The Court: It may be marked.

The Clerk: Plaintiff's Exhibit 20 for identification. [514]

(The drawing referred to was marked as Plaintiff's Exhibit No. 20 for identification.)

Mr. Sellers: Now I would like to offer it in evidence.

The Court: It may be received in evidence.

The Clerk: No. 20 in evidence.

(The drawing referred to was received in evidence as Plaintiff's Exhibit No. 20.)

Mr. Sellers: I wonder, your Honor, if we may have the recess now.

The Court: All right.

Mr. Sellers: Thank you, your Honor.

The Court: Court will stand in recess until 2:00 o'clock this afternoon.

(Thereupon, a recess was taken to 2:00 o'clock p.m.) [515]

Friday, March 16, 1956—2:00 P.M.

Mr. Sellers: Your Honor, I want you to know that we tried to get together and we came a little close, but we weren't successful.

The Court: Well, maybe I can say something that might throw some different light upon the

(Testimony of E. F. Cornett.)

situation. You made an objection to the introduction of evidence upon the ground that you hadn't received proper notice.

Mr. Sellers: That is correct, your Honor.

The Court: As I read the statute, it can be received by the court in its discretion upon what terms he deems best.

Mr. Sellers: I think that is correct, your Honor.

The Court: It is my anticipation if I find in favor of the defendant in this case, that I will not allow the defendant costs, so I am just throwing that in, that inasmuch as the defendant has had an advantage which he could very easily be deprived of, an advantage which, at this case has developed, is a very material advantage, I think it is only fair that he be penalized to the extent that he wouldn't be allowed to recover his costs. I have not made any ruling yet, but I am just telling you what I am anticipating doing.

Mr. Sellers: That the defendant would be entitled to recover costs?

The Court: Would not be entitled to recover costs. In [516] other words, each side will take care of their own costs.

Mr. Sellers: In the event this case proceeds, each side will bear its own costs.

The Court: In the event this case proceeds and judgment is rendered for the defendant, each side will bear its own costs.

Mr. Sellers: Well, I think that would be fair and equitable.

(Testimony of E. F. Cornett.)

The Court: So if the question of costs is involved, you can forget the question of costs right now.

Mr. Sellers: Does that make any difference to you, Mr. Lyon?

Mr. Lyon: Not a bit.

The Court: Also, I might indicate to counsel I anticipated this case would finish today. From the present indication, if the case goes on, it will not finish today, so I will have to continue the case until Thursday or Friday of next week. In the meantime, that will give you an opportunity to investigate the situation in San Francisco.

Mr. Sellers: Thursday and Friday and next Monday following, I will be in Philadelphia and New York taking depositions.

Mr. Lyon: May it please the court, I have one witness I can get through with in a half or three-quarters of an hour and we will be through.

Mr. Sellers: I am not through with this man yet. [517]

Mr. Lyon: It depends on how much time you want.

The Court: You may proceed. I am going to have to stop promptly at 4:00 o'clock, so we won't take any recess until 4:00 o'clock now.

Mr. Lyon: Your Honor, may I make this suggestion? Mr. Bodinson, the owner of the Bodinson Manufacturing Company, has been kind enough to come down here to testify on our behalf, and he cannot remain after Friday.

(Testimony of E. F. Cornett.)

The Court: This is Friday.

Mr. Lyon: That's right. Can I take him out of order to insure I get him in this afternoon?

The Court: I have no objection. Will you relinquish this witness temporarily?

Mr. Sellers: I will leave that to Mr. Denny. Do you prefer to proceed with him or are you willing to have him step down?

Mr. Denny: I don't think it makes any difference.

Mr. Sellers: What do you want to do?

Mr. Denny: Let's defer to their request.

Mr. Sellers: All right. You may step down.

(Witness withdrawn.)

The Court: Call the next witness.

Mr. Lyon: Mr. Bodinson. [518]

FRED W. BODINSON

called as a witness by and on behalf of the defendants herein, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you please state your name.

The Witness: Fred W. Bodinson, B-o-d-i-n-s-o-n.

Direct Examination

By Mr. Lyon:

Q. What is your present occupation, Mr. Bodinson?

A. I am head of my manufacturing company, building steel machinery.

(Testimony of Fred W. Bodinson.)

Q. What is the name of the company, sir?

A. Bodinson Manufacturing Company.

Q. How long has Bodinson Manufacturing Company been in existence? A. It dates back——

Q. To the best of your recollection.

A. It is my recollection my dad started it when I was about six or seven years old, and I am 42 now.

Q. When was your first employment by the Bodinson Manufacturing Company?

A. Well, that started about 1928 or 1929, when I was a freshman in high school, working Saturdays and on vacations.

Q. How old were you at that time, sir? [519]

A. About 17, 16 or 17.

Q. You worked Saturdays and vacations at this company from then on until you got out of high school? A. Correct.

Q. So that you have been with the company continuously since 1928 or 1929?

A. That's right.

Q. When did you take over the presidency?

A. 1940.

Q. What is the policy of your company with respect to the maintenance of drawings of various equipment which you have built?

A. Well, we are very particular about keeping an accurate record.

Q. Would you describe the system to me, please?

A. Well, when a drawing is made, before we get a job, it is given an E number, that's an estimate.

(Testimony of Fred W. Bodinson.)

After the job is processed through the shop, then it takes a L, M, S, or K number. Once a drawing is made under those names, it is then put into the index file in three ways. One by customer's name, second by the subject matter, whether it should be a conveyor, a crane, or whatever it might be, and, thirdly, it is classified as to size.

Q. Has that same system been utilized since you began your association with this company? [520]

A. Yes.

Q. For every material or structure your organization has made since you have been there, they have had a drawing, is that right?

A. To the best of my knowledge, yes.

Q. Are those drawings——

A. I will go one step further, if I might add, every year we have a policy of putting all the drawings for that previous year on microfilm in order to put them in safe keeping should we have a fire or loss of any kind. Drawings are all put on microfilm and stored in a safety deposit box in a bank.

Q. I show you now a drawing marked for identification as Defendants' Exhibit A and ask if you can identify that drawing.

A. This was a drawing made in our company, December 4, 1931, by Mr. Pete Hansen, his initials are P. H., and his signature I recognize.

Q. You are referring to the lower right-hand corner in which there is a small box?

A. That's right.

(Testimony of Fred W. Bodinson.)

Q. I see it says, "Drawn by," and the initials P. H. are there. What would that indicate to your records?

A. That is P. H., Pete Hansen is the name.

Q. Would that be the draftsman? [521]

A. That is the draftsman who drew the drawings.

Mr. Sellers: Your Honor, I object to that. He didn't say he saw him do that. There has been no basis for saying he knew he drew it.

The Court: Aren't these documents admissible under the document rule? I think I read it to you the other day. All in the world you have to establish is that you keep a written memorandum, it is customary to keep a written memorandum in your files, and it speaks for itself. He has testified that they keep the drawings. He doesn't have to testify he knows them. He doesn't have to testify he knows anything about the drawing.

Mr. Sellers: He testified the company has kept them. He said he started to work when he was 16 or 17, but had nothing to do with them at that time and he was in no position to know the policy of the company at that time.

The Court: He doesn't have to show the policy of the company.

Mr. Sellers: Well, your Honor, he is president now and he can state what the policy has been since he has been president, but how can he state the policy prior to that time in the absence of a showing that he knew it?

(Testimony of Fred W. Bodinson.)

The Court: Were those found in the files of your company?

The Witness: Yes, sir. [522]

The Court: Is it customary to keep such records as those?

The Witness: Yes, your Honor.

The Court: I don't know what more you have to establish.

Mr. Sellers: Who found them there?

The Court: It doesn't make any difference.

1732 says that any writing or record, any writing or record, whether in the form of entries in a book or otherwise, made as a memorandum or record of any transaction, act, occurrence or event, and this certainly is a memorandum or record, a drawing, shall be admissible in evidence first, if made in the regular course of business, and this man testifies that it is the regular course of business to keep the records.

Mr. Sellers: He is not able to state it was made in the regular course of business. He says it is customary to keep them, but I repeat there is a considerable difference between a policy of keeping records and establishing it was made in the regular course of business.

The Court: If you have an objection, it is overruled.

Mr. Sellers: I do object.

The Court: Overruled.

Mr. Sellers: I think we are entitled to know who made it.

(Testimony of Fred W. Bodinson.)

The Court: The record speaks for itself. The witness says he recognizes the signature upon the record. [523]

Mr. Sellers: No. There is no signature there, your Honor.

The Court: The initials.

Mr. Sellers: You mean he recognizes a printed P. H.? I don't think you want to say you recognize that P. H.—well, I don't want to take over. I am sorry.

The Court: Can you tell me you recognize those initials?

The Witness: I do.

Mr. Sellers: As having been made by a particular man?

The Witness: I do.

Mr. Sellers: You know that is his P. H. as distinguished from a P. H. made by any other engineer?

The Witness: I mean I am as familiar as I can be with his signature. I can show you others written in longhand characters, different ones. There are two different ways. You just know them, that's all.

Mr. Lyon: It is the same as a bank clerk would know.

Mr. Sellers: These are two letters in printed form as in drafting.

The Court: If you have an objection, it is overruled.

Mr. Sellers: I do object.

The Court: Overruled.

(Testimony of Fred W. Bodinson.)

Q. (By Mr. Lyon): Is it the custom of your company when you have a drawing of this type to have it checked by an engineer after it has been drawn by the draftsman?

A. That is the policy, but it doesn't always happen, I [524] am sorry to say.

Mr. Sellers: I object to that question and move the answer be stricken. This drawing was made back at a time many years ago and the policy today is not relevant.

The Court: It may go out.

Q. (By Mr. Lyon): Do you follow the same filing system, the same system of keeping records, that was followed in the company before you?

A. Yes.

Mr. Sellers: I object. There is no evidence showing he knows that.

The Court: Suppose we have a company a hundred years old. There is nobody in existence that can testify they saw the records made, but they testify, "We have always kept records, and this was found among our records"?

Mr. Sellers: Then it might come in as an ancient document, but this is no ancient document. If he is going to testify as to policy, he should testify to a policy that he knows about, not something which he only has as a guess.

The Court: Objection overruled.

Q. (By Mr. Lyon): Of your own personal knowledge, do you know what that drawing represents?

(Testimony of Fred W. Bodinson.)

A. That represents a weigh hopper for the Bode Gravel plant at 16th and Alabama in San Francisco.

Mr. Sellers: I object, your Honor. There has been no [525] showing that he was present when the drawing was made. There has been no showing he knows it was made to scale, there has been no showing he knows it was accurate. He is looking at a drawing in order to do this. It is a matter of opinion. I move the answer be stricken.

The Court: Denied. The objection is overruled.

Q. (By Mr. Lyon): Did you see a drawing of this Alabama plant while it was in the course of being constructed? A. I did.

Q. Did you go over the drawing with other personnel who were engaged in constructing the plant?

A. I was too young, but I was working on the project.

Q. And you did see the drawing?

A. I did see the drawing.

Q. Although your position with the company wasn't such that you would advise anybody?

A. That's right.

Mr. Lyon: I would like to offer this in evidence, your Honor.

Mr. Sellers: I object, your Honor.

The Court: It may be received in evidence.

Mr. Sellers: No proper foundation.

The Court: Exhibit A in evidence.

The Clerk: Exhibit A. [526]

(Testimony of Fred W. Bodinson.)

(The document referred to was received in evidence and marked as Defendants' Exhibit A.)

Mr. Lyon: Your Honor, I have another group of drawings. Do you want them introduced as one exhibit or individually?

The Court: It doesn't make any difference to me.

Mr. Lyon: Perhaps it will be easier on the clerk if we do them individually.

Q. I will show you a second drawing and ask if you found this in your files.

A. That is the same drawing, I believe.

Q. I am sorry.

A. That is a copy I brought down.

Mr. Sellers: I would also like to make an objection to the other drawing, your Honor, upon the basis that it is secondary evidence. It is not the original drawing but instead is a print. There is a stipulation in this case that copies can be entered subject to verification. We have not had the opportunity to verify the original drawing.

The Court: Objection overruled.

Q. (By Mr. Lyon): I show you now a second drawing and ask you if you can identify that drawing as one you found in your files. A. Yes.

Q. To what does this pertain, according to the records of your company? [527]

A. This pertains to the same job, Bode Gravel, under Kaiser Paving, same register number, same group.

(Testimony of Fred W. Bodinson.)

Q. This is also a drawing of an element of that plant at Alabama Street in San Francisco?

A. Yes.

Mr. Sellers: Objected to as calling for a conclusion. The drawing speaks for itself.

The Court: That's perfectly all right. If you have no objection, it can be admitted in evidence.

Mr. Sellers: I do object.

The Court: Then they have to lay a foundation.

Mr. Sellers: Your Honor, he was asked an opinion, does it show a certain thing.

Mr. Lyon: I asked according to the records of his company.

Mr. Sellers: What records? I think we are entitled to know what records you are referring to.

The Court: Objection overruled. You may proceed.

Q. (By Mr. Lyon): What does this drawing represent?

A. This represents the slide gates on the cement weigh hopper.

Mr. Sellers: I object to the question and move the answer be stricken. The document is the best evidence of what it discloses.

The Court: The document may be the best evidence, but I [528] can't read the document.

Mr. Sellers: The document speaks for itself.

The Court: But I can't read the document.

Mr. Sellers: Then he should call in an expert.

The Court: Haven't we got an expert?

(Testimony of Fred W. Bodinson.)

Mr. Sellers: Not so qualified. I don't know whether he can read blueprints.

The Court: What is your educational background? That is the way to establish it.

The Witness: I have a State registration as an engineer here.

The Court: Are you registered by the State of California?

The Witness: Yes.

The Court: Can you read blueprints?

The Witness: Yes.

Mr. Sellers: That is a self-serving statement, your Honor. I don't think that is any way to establish the fact that he can read blueprints.

The Court: What is your educational background?

The Witness: I studied in high school drawing and in junior college drawing. I spent many years in my own company drawing. I quite often do the drawings for the equipment we build today.

The Court: How long have you been making drawings of [529] your own?

The Witness: For the company since 1934 off and on.

The Court: How many drawings have you made?

The Witness: Oh, I haven't occasion to make too many of them. Most of them are sketches. Some complete drawings I put in the shop myself, but offhand I would say a couple of hundred.

The Court: In your work, is it necessary to read these drawings?

(Testimony of Fred W. Bodinson.)

The Witness: Absolutely.

The Court: How long have you been reading drawings?

The Witness: I have been reading drawings since 1929.

Mr. Sellers: But, your Honor, he may have been reading them wrong. He hasn't established the basis that he is qualified to read them at all, and the fact that he has been reading them wrong does not establish that he is an expert.

The Court: You know, some lawyers come up in court and sometimes they don't agree with the judge, and maybe they think the judge is reading the wrong cases.

Mr. Sellers: Your Honor, I move to strike that.

The Court: I think this man is qualified.

Mr. Sellers: On what basis, your Honor? He has said he can read drawings. That is a self-serving statement. He says he makes most of his sketches. When he wants a drawing made, he turns it over to the draftsman. He says he has read a [530] couple of hundred drawings or more. No one who has ever seen him read a drawing has said he could.

The Court: If you want to, you can bring an engineer up here and he can read them and give the interpretation.

Mr. Sellers: That is what should be done.

Mr. Lyon: He is an engineer.

Mr. Sellers: But that shows something relating to a particular plant. An engineer wouldn't be able to tell that.

(Testimony of Fred W. Bodinson.)

The Court: I think he was asked what does it relate to, and he said it relates to a particular plant.

Mr. Sellers: It's the same thing. Your Honor, he is not an expert. He may be, but he hasn't shown it.

The Court: I think he has as much of a background as your first witness did.

Mr. Sellers: My first witness has testified and now is no time to attack him.

The Court: Your first witness didn't have a formal education. His whole testimony was based upon the experience which he had in the field.

Mr. Sellers: He had two years in college, your Honor, and he had been—well, you know what he said as well as I. But in this case——

The Court: Suppose you proceed, Mr. Lyon.

Q. (By Mr. Lyon): Are you a registered engineer in the State of California? [534]

A. I am.

Q. You have passed the qualifications test that that requires?

A. At the time I took the test, yes.

Q. In mechanical engineering? A. Yes.

Q. What does mechanical engineering involve? The reading of blueprints?

A. And designing.

Q. Designing and reading of blueprints and that type of thing?

A. Yes. This one I have right here is an old one. It is 1951.

Mr. Sellers: Did you have it renewed?

(Testimony of Fred W. Bodinson.)

The Witness: Yes, I had it renewed. I haven't got it with me, but every year it is renewed automatically.

Mr. Sellers: I have to pay $6.00 for mine.

Q. (By Mr. Lyon): Mr. Bodinson, in your duties as an officer of the corporation, as president of the corporation, do you have cause to read various blueprints concerning various construction jobs you are doing? A. Every day.

Q. Do you advise your personnel what to do on the basis of your having read these blueprints?

A. I do. [532]

Q. How to construct your equipment, how to construct the plants? A. I do.

Q. I will ask you again, what does this drawing relate to?

A. That relates to a slide gate, air-operated.

Q. That would be a slide gate for what?

A. It is for the Bode Gravel plant job at 16th and Alabama.

Q. Is that the slide gate for the aggregate hopper or cement hopper?

A. That is for the cement hopper.

Mr. Lyon: May I have this identified as defendants' exhibit next in order?

The Court: It may be marked.

The Clerk: F for identification.

(The document referred to was marked Defendants' Exhibit F for identification.)

Mr. Lyon: I offer it in evidence.

(Testimony of Fred W. Bodinson.)

Mr. Sellers: I object, your Honor, upon the ground it is not properly identified.

The Court: Overruled. It may be admitted in evidence.

The Clerk: Exhibit F.

(The document referred to was received in evidence and marked as Defendants' Exhibit F.) [533]

Mr. Sellers: I would like to add there is no showing of authenticity. We don't know who made it, we don't know the source, where it was made, by whom or who saw it made.

The Court: Overruled.

Q. (By Mr. Lyon): I show you a second drawing and ask you to identify that, sir.

A. That is made by Mr. Pete Hansen, December 11, 1931, for the same job we are speaking of, made in San Francisco at our plant.

Q. And that illustrates what?

A. That is a bottom plate to a bin.

Mr. Sellers: I would like the record to show that the witness read this from the blueprint and didn't state that of his own knowledge.

The Court: The record may so show.

Mr. Sellers: Thank you.

Mr. Lyon: That would be one of the bottoms for one of the storage bins?

Mr. Sellers: I object to the question. It is leading.

The Court: Sustained.

(Testimony of Fred W. Bodinson.)

Q. (By Mr. Lyon): What does that show?

A. This is the bottom of one of the storage bins on the main hopper above, above the weigh hopper.

Q. Would that illustrate the device used in the plant constructed at Alabama Street in San Francisco? [534]

Mr. Sellers: I object to that question as leading.

The Court: Overruled.

The Witness: Yes.

The Court: It may be marked.

Mr. Lyon: May this be marked Defendants' Exhibit G and may I offer that in evidence?

Mr. Sellers: Object upon the same basis as the preceding objection.

The Court: Same ruling. It may be admitted in evidence.

The Clerk: Exhibit G.

(The document referred to was received in evidence and marked as Defendants' Exhibit G.)

Q. (By Mr. Lyon): I show you another drawing and ask you to identify that, sir.

A. This drawing is made by a man who is now deceased. You can't read it, but I can. Mr. B. P. Little. I may phrase that a little different. You can see the signature. It is difficult. But it is the longhand of Mr. B. P. Little. It is on the Bode Gravel plant in San Francisco, and it concerns the cement weigh hopper and the rotary feeder above it.

Mr. Sellers: I would like the record to show that

(Testimony of Fred W. Bodinson.)

the identification was read from print in this case, also.

The Court: The record may so show.

Mr. Lyon: This shows the cement weigh hopper and the feed—— [535]

Mr. Sellers: I object to the question, your Honor, as leading.

Mr. Lyon: He just so stated, your Honor.

The Court: The witness can probably read the drawings much better than the attorney can.

Mr. Lyon: I think that is correct.

Q. What does that show, that drawing?

A. It shows the arrangement of the rotary feeder above the weigh hopper and the linkage of the weigh hopper to the scale lever parts.

Q. It shows the support of the—which hopper?

A. The cement hopper.

Q. The cement hopper. From the scale?

A. From the scale levers.

Q. Was that installed in the Alabama plant in San Francisco?

Mr. Sellers: I object, your Honor, as leading.

The Witness: Yes, it was.

Mr. Sellers: I move to strike it.

The Court: Overruled. The answer may stand.

Mr. Lyon: I would like to have this marked Defendants' Exhibit next in order and offer it in evidence.

The Court: It may be marked.

Mr. Sellers: Same objection, your Honor.

(Testimony of Fred W. Bodinson.)

The Court: Same ruling. It may be received in evidence. [536]

The Clerk: Exhibit H.

(The exhibit referred to was received in evidence and marked as Defendants' Exhibit H.)

Q. (By Mr. Lyon): I show you a further drawing and ask you if you can identify that.

A. That is a general arrangement of the weigh hopper showing the cement hopper, the aggregate hopper, and that is the scale there.

Q. Scale for what?

A. This is the scale for the cement, the one that is in the center, independently hung. That is the leverage.

Q. Does it show anything else?

A. There is a scale lever there.

Q. Scale levers. What are those for?

A. That is for the cement scale hopper. That is the cement hopper, weigh hopper.

Q. Which was in the——

A. In the center of the——

Q. Aggregate hopper?

A. Aggregate hopper.

Q. Was it independently movable in there?

A. Definitely.

Q. This is a drawing made by your company?

A. Yes.

Q. Found in your files? [537]

A. That is correct.

Q. Pertaining to the construction of the Ala-

(Testimony of Fred W. Bodinson.)

bama plant? A. Correct.

Mr. Lyon: May this be marked next in order?

The Court: It may be marked.

Mr. Lyon: Offer the same in evidence?

Mr. Sellers: I object, your Honor.

The Court: Same objection and same ruling.

Mr. Lyon: Thank you.

The Clerk: Exhibit I.

(The document referred to was received in evidence and marked as Defendants' Exhibit I.)

Q. (By Mr. Lyon): I offer you another drawing and ask if you can identify this drawing.

A. That was made in our company by Mr. B. P. Little, the man I mentioned before, for the Bode Gravel plant, 16th and Alabama, and it shows the feeder drive for operating the cement feeder, and it shows scale beams. I believe that is for the cement.

Mr. Sellers: I ask the record to show, your Honor, that the identification as to the Bodinson Manufacturing Company and where it came from was read from the print.

The Court: The record may so show.

Q. (By Mr. Lyon): This drawing was found in your files? A. That is correct. [538]

Q. It pertains to the construction of the Alabama plant? A. That is correct.

Mr. Lyon: I would like to have this marked next in order.

(Testimony of Fred W. Bodinson.)

The Court: It may be marked.

Mr. Lyon: I offer it in evidence.

Mr. Sellers: Same objection, your Honor, for the same reasons.

The Court: Same objection and same ruling. It may be admitted.

The Clerk: Exhibit J.

(The document referred to was received in evidence and marked as Defendants' Exhibit J.)

Q. (By Mr. Lyon): I now show you a further document and ask if you can identify that.

A. This is a copy of the shop order. After we get a job at Bodinson Manufacturing Company, that tells who took the order, which happened to be my father, and it was sold to Kaiser Paving Company for the Bode Gravel Company, 16th and Alabama Streets in San Francisco. It details, spells out in detail, every bolt, nut, drawing number, bearing, hopper, general description of everything that goes into the construction of that particular order. [539]

The Court: Where did you get that?

The Witness: That I took out of our private files of my company.

Q. (By Mr. Lyon): It has been the practice of your company to keep a record of this type on all jobs? A. That is correct.

Q. Every time you get a job, you make out such a purchase order? A. Every job.

Q. And those records are kept how?

(Testimony of Fred W. Bodinson.)

A. Well, we keep them in this—this goes back to August 3, 1931, and generally there is a big file of drawings, or material with each order in a job of this size. We keep all those things, delivery receipts, invoices, buy-outs, foundry weigh slips, things of that nature, correspondence. We keep all of that in our files. Finally, about two or three years ago, we had to reduce our files because of space, so we went back beyond, well, from up to around 1932, November, 1932, and beyond that we threw out all those foundry slips and invoices, but we kept a copy of the general order file, and that is what this represents. So we have a complete story of everything we built all the way back, but we do not have the invoice for a valve, or something like that. But we do keep the order itself.

Q. That has been the custom of your company, to keep [540] records of this kind, since your association? A. Yes.

Q. To the best of your recollection?

A. Correct.

Q. When you took over as president, you didn't change the system? A. Not a bit.

Q. You continued the system?

A. We always refer back to these.

Q. You continued using the same system which you inherited from the former president?

A. That is correct.

Mr. Sellers: Now, I object to that question and I move the answer be stricken. He can't tell what the system was before he took over.

(Testimony of Fred W. Bodinson.)

The Court: It may go out. He said he didn't change the system.

Mr. Lyon: I am sorry. What went out? Could we have that read back?

(The record was read.)

The Court: He can't testify to what the system was before he took over. His testimony was he continued the same old system. I think that is as far as he can go.

Mr. Lyon: I agree with you, your Honor.

Q. According to your records, your method of keeping [541] records, what would this document indicate?

A. This particular document indicates that there is the drive machinery for 24-inch by 178-foot conveyor, and all the component parts, the air ram gates under the main holding hopper, aggregate hopper, and all the parts, component parts to that, the weigh hopper and all the component parts to that, including the cement weigh hopper and the water-holding hopper, a water tank on it, and all the component parts, such as the air cylinders, the pistons, the bolts, nuts and glands—well, that just about covers everything.

The Court: What is the date? Are there any dates on that?

The Witness: The date on that is August 3, 1931.

Q. (By Mr. Lyon): That would be the date that this order was sent down to the department that was to handle it?

A. To process it in the shop, yes.

(Testimony of Fred W. Bodinson.)

Q. How is it processed in the shop?

A. We make these things up in several duplications. In other words, one of those goes to the engineering department, one goes to the purchasing department, and one goes into the steel shop, and one goes into the machine shop, and one goes into the delivery room, the receiving clerk, and the purchasing agent in our company will go down over the list and he will see parts we have to buy out, maybe a cut steel pinion, if we weren't cutting pinions at that time, which we weren't [542] and still don't, buy some special rubber washers, or things of that nature.

The next man might come along and buy some castings, brass, bronze, for the cylinders. Rubber gaskets would be purchased outside. We don't make the rubber gaskets.

Then the steel shop would go down and check these things from the drawings and description here and proceed to order the steel to fabricate the things called for, and continue to incorporate all these component parts.

The receiving clerk, it would be his duty to receive these things that are bought on the outside, and mark them when they come in according to the marks on these drawings. For instance, this cylinder tube would be item R on sheet No. 4 of register No. 11198. That would go into a bin until such time as they were ready to use that, and then they would go to the bin and take that part out and put it on that particular unit.

(Testimony of Fred W. Bodinson.)

The shipping clerk uses the same document to check off everything when it is ready to ship.

Then all that is put back into the file after the job is shipped and probably goes to the cost department to see whether we made money or lost money. That's the end of it.

Q. Now, the parts that were ordered by this purchase order went into what construction?

Mr. Sellers: I object. There has been no basis to show [543] he is in any position to know where these parts went. He has identified this particular thing according to the policy of his company.

The Court: Well, the record speaks for itself.

Q. (By Mr. Lyon): According to the document.

The Court: The objection is sustained. What does the document show?

Mr. Lyon: It shows——

The Witness: It was shipped to the Bode Gravel Company, 16th and Alabama Streets, San Francisco.

The Court: The document speaks for itself.

Mr. Lyon: May I offer this group of job orders?

The Court: That may be marked for identification.

Mr. Lyon: I offer the same in evidence.

Mr. Sellers: I would like to object, your Honor. This is a copy. It is not the original.

The Court: You don't have to have originals under this rule.

Mr. Sellers: I am just objecting, your Honor. I think this is a good objection. There has been no basis laid to show that the speaker has any knowl-

(Testimony of Fred W. Bodinson.)

ledge of what went in there, how they got together, how they relate to any issue related to this particular action. The only connection between this particular bit of evidence in this case is the fact that he got it from the company files, and on the letterhead happens [544] to be a name indicating some relationship to some of the bits of evidence here.

The Court: The objection is overruled. It may be admitted in evidence.

The Clerk: Exhibit K.

(The document referred to was received in evidence and marked as Defendants' Exhibit K.)

Q. (By Mr. Lyon): I show you a second job order and ask you if you can identify that.

A. This is to be delivered to the same plant, Bode Gravel, at 16th and Alabama, sold to the Kaiser Paving Company account. The order was taken by Mr. King, who was our chief engineer at that time, and Mr. Bjorn.

It calls for a cement weigh hopper for drawing L-2188, and the component parts of it, cylinder, slide gates, air cylinders, as stated before, and calls for the additional component parts that might be required.

Mr. Sellers: I move the answer be stricken, your Honor. The document speaks for itself. I also want the record to show that what he has read he read from the document.

(Testimony of Fred W. Bodinson.)

The Court: Objection sustained. The document speaks for itself.

Mr. Lyon: There is one other question.

Q. I note here on the first page of this job order the number L-2488, which is after one weigh hopper for cement complete [545] as per drawing L-2488. Could you explain what that means, according to the records of your company?

A. According to the record, when the man in the shop gets the order, he says that is what has to be built, and he gets hold of the engineering department and asks for blueprints or drawings and proceeds from there.

Q. According to the records of your company, would Exhibit A in evidence be the drawing referred to?

A. Yes. That would be it, and that portion of this drawing would be that cement hopper.

Q. In other words, the number L-2488 corresponds to the number on this drawing.

A. On this drawing, and the cement hopper corresponds to this particular section. That is what it is.

Mr. Lyon: May I offer this next group of job orders?

The Witness: That is how it is made.

Mr. Sellers: Same objection as to all the other documents, not properly authenticated.

The Court: Objection overruled. It may be received in evidence.

The Clerk: Exhibit L.

(Testimony of Fred W. Bodinson.)

(The document referred to was received in evidence and marked as Defendants' Exhibit L.)

Q. (By Mr. Lyon): May I show you another document and [546] ask you if you can identify that.

A. That is for the same account, Bode Gravel Company, 16th and Alabama. The order was taken by Mr. King, Jones and Little, all of our engineering department. This was December 17, 1931, and reads, "Change main scale beams on both cement and aggregate hoppers."

Mr. Sellers: I move the answer be stricken, your Honor. He is reading from the document and it speaks for itself.

The Court: I think the objection is good. The document speaks for itself. You can lay a foundation for the document being found in the files of the company.

Mr. Lyon: That's all I wanted.

The Court: And the document can be introduced in evidence.

Q. (By Mr. Lyon): This is a document found in the files of your company?

A. That is correct.

Q. I hand you the next in this group and ask you if you can identify that.

Mr. Lyon: May I mark this as the next in order, your Honor?

The Court: It may be marked.

(Testimony of Fred W. Bodinson.)

Mr. Lyon: And I offer it in evidence.

Mr. Sellers: Same objection.

The Court: Same objection and the same ruling. [547]

The Clerk: Exhibit M.

(The exhibit referred to was received in evidence and marked as Defendants' Exhibit M.)

The Witness: This is another copy of order taken by Mr. King and Mr. Bjorn——

Q. (By Mr. Lyon): Don't read the document. Just identify it as found in your files.

A. It is the same one found in the files of the same company.

Q. This is a purchase order, a job order which was found in your records?

A. That is correct.

Q. Pertaining to this particular construction?

A. Yes.

Mr. Lyon: May I ask that this be marked next in order?

The Court: It may be marked.

Mr. Lyon: And I offer the same in evidence.

Mr. Sellers: Same objection.

The Court: Same objection. It may be received in evidence.

The Clerk: Exhibit N.

(The exhibit referred to was received in evidence and marked as Defendants' Exhibit N.)

The Witness: This is another similar document.

(Testimony of Fred W. Bodinson.)

job order, found in our files for the same [548] purpose.

Q. (By Mr. Lyon): For the same job?

A. For the same job.

Mr. Lyon: May I ask that this be marked next in order and I offer the same in evidence.

Mr. Sellers: Same objection.

The Court: Same objection and same ruling. It may be received in evidence.

The Clerk: Exhibit O.

(The document referred to was received in evidence and marked as Defendants' Exhibit O.)

Q. (By Mr. Lyon): Would you thumb through this sheaf and see if you can identify that group?

A. These documents are all orders for the Bodé Gravel plant, 16th and Alabama, found in our files.

Q. Thank you. A. Shop orders.

Q. Of the same nature as the last documents we had? A. That is correct.

Mr. Lyon: May I ask that these be clipped together and identified as our next exhibit?

The Court: They may be marked as the next exhibit.

Mr. Lyon: And I offer the same in evidence.

Mr. Sellers: Same objection.

The Court: They may be received in evidence. Same ruling.

The Clerk: Exhibit P. [549]

(Testimony of Fred W. Bodinson.)

(The document referred to was received in evidence and marked as Defendants' Exhibit P.)

Q. (By Mr. Lyon): Mr. Bodinson, when did you first see the plant at Alabama Street, in San Francisco, to the best of your recollection? Did you see it under construction? I will ask that question first.

A. Yes, I did. I would say it was one of the Saturdays in the fall of 1931, between August and December.

Q. How do you set that date, sir?

A. Well, at that time that was the only time I could perform work for the company, on Saturdays. I was in school the rest of the time. It was my habit and work that I went to the shop with my father on Saturdays and worked in the shop and went about the different jobs. This happened to be one right in town in San Francisco. We were a few miles from the job, and it was natural that I would go over to the job, because a lot of work was done on Saturdays in those days.

Q. Did you do any work on this plant while it was being constructed?

A. I would limit it to maybe the helpers classification, painting, or something of that nature. Not any construction.

Q. But you had an oportunity to observe the construction of this plant as it went up?

A. Well, most of it was built when I wasn't

(Testimony of Fred W. Bodinson.)

there, so [550] to speak, but I saw it on occasion, on Saturdays, and from then on I would make deliveries to it, maybe, later on in the years following.

Q. What type of a lot was this plant put up on? I mean was it just an open lot?

A. 16th and Alabama Street in San Francisco is right near the railroad, the switch tracks. It is an open lot, and this particular building was open all around at the base and had a stairway from the ground floor up to the batch floor, and from there on it was covered with galvanized sheeting for a short distance, and then it went into wood structures which housed all the sand and gravel in the bins to make the weigh floor.

The Court: Mr. Lyon, may I call your attention to the fact that you said you would take only a few minutes? We are approaching 3:30.

Mr. Lyon: I hope to be finished at 3:30.

The Court: Mr. Sellers should have some right to cross-examine, or the witness will have to come back.

Mr. Lyon: I will be through in five minutes.

The Court: Five minutes? You were only going to take four or five minutes to begin with.

Mr. Lyon: There was some difficulty in getting the drawings identified.

The Court: I cannot go after 4:00 o'clock. If Mr. [551] Sellers doesn't complete, the witness will have to come back.

Mr. Lyon: I will finish in two questions.

The Court: All right.

(Testimony of Fred W. Bodinson.)

Q. (By Mr. Lyon): Was this plant open to the public view for any one that happened to be around? I mean walking down the sidewalk, you could see the plant? A. Yes.

Q. Nothing secret about the operation?

A. Nothing secret about it.

The Court: What difference does it make? The plant was in operation.

Q. (By Mr. Lyon): Did this plant comprise, to your knowledge, an aggregate hopper having a cement hopper disposed therein suspended from separate scales?

Mr. Sellers: I object, your Honor.

The Court: Sustained. Here is just a boy working around the plant.

Mr. Lyon: Yes, sir.

The Court: He was only there a short period of time.

Mr. Lyon: That's right, but I believe his testimony will show that he has been associated with this plant for many, many years after that, your Honor.

The Court: You have got the drawings in evidence. What more do want?

Mr. Lyon: Nothing. I turn the witness over to Mr. [552] Sellers.

The Court: All right.

(Testimony of Fred W. Bodinson.)

Cross-Examination

By Mr. Sellers:

Q. When you were a boy, 16 or 17, and going around with your father, at that time you didn't have an engineering education? A. No.

Q. And at that time you didn't have the opportunity to compare the construction of the Alabama plant with the drawings used in making it, did you?

A. I believe I testified to that.

Q. You didn't have an engineering education?

A. I said that I did not compare them.

Q. I am sorry. I thought you said you did.

A. I said I had nothing to do with the drawings at that time.

Q. At any later date did you have occasion to take the drawings of the Alabama plant and compare it piece by piece with the Alabama plant itself?

Mr. Lyon: I will object to that, your Honor. I don't see the purpose.

The Court: Overruled.

The Witness: I have referred to the drawings many times [553] since.

Mr. Sellers: I would like my question answered, please.

The Witness: Ask it again, please.

The Court: Read the question.

(Question read.)

The Witness: No, sir.

Q. (By Mr. Sellers): Then, as a matter of fact,

(Testimony of Fred W. Bodinson.)

at the time it was built you don't know and didn't know that the plant was the equal or equivalent of the drawings which we have seen here and which have been introduced in evidence, and at no time since then have you compared these drawings with the Alabama plant to make certain that they identify that in detail?

A. Well, I have been down to the plant many, many times.

Mr. Sellers: I move the answer be stricken, your Honor, as not responsive. I would like to have my question answered.

The Court: It may go out.

The Witness: I am trying to get what you are driving at. Will you read the question again, please?

(Question read.)

The Witness: No.

Q. (By Mr. Sellers): Thank you. When did you start studying engineering? [554]

A. In 1932, September.

Q. When did you graduate as an engineer?

A. I did not graduate as an engineer.

Q. How many years engineering did you take?

A. I had two years junior college, preliminary engineering work.

Q. Where was that?

A. Marin Junior College.

Q. Marin Junior College?

A. That is correct.

(Testimony of Fred W. Bodinson.)

Q. Did you specialize in any particular type of engineering?

A. No. I was just building up the preliminaries.

Q. While you were a boy 16 or 17, you worked with your father at the plant on Saturdays and week ends. When did you become a full-time employee? A. I believe it was full time in 1934.

Q. In 1934?

A. Yes, in the summer or fall of 1934.

Q. What was your capacity at that time?

A. Well, you might call it sort of co-ordinator in the shop, getting orders and jobs tied together, and later on went out on jobs directing steel work and putting jobs together as an erecting man, I would say, in 1935.

Q. When did you become an officer of the company? [555] A. June, '40; July, '40.

Q. And prior to that time you had no part in formation of policy of the company, did you?

A. No, that is correct.

Q. So that what the policy of the company was with respect to the keeping of records of the handling of orders was entirely something outside of your field of activity back in the years 1931, 1932 or 1933, in that period? A. That is correct.

Q. And, therefore, when you told us what the policy of the company was with respect to the records, you were telling us what it is since you have been in an official capacity with the company?

A. Which is no change prior to that.

(Testimony of Fred W. Bodinson.)

Mr. Sellers: I move to strike that as not responsive to my question.

The Court: It may go out.

Mr. Sellers: I would like an answer.

The Court: Read the question.

(Question read.)

The Witness: That is correct.

The Court: I might say I am not interested at all relative to the material that went into this plant. I am interested only as to the date.

Mr. Sellers: Only as to the date, your [556] Honor?

The Court: Only as to the date. That is the only thing I think is material. There is no question the plant was built. The question is whether it was built in 1931 or at a later date than 1932. The invoices show the date when the materials were delivered. We have the testimony of these other witnesses as to when it was built. I am satisfied that if you want to you could find in San Francisco from the Building Department when the building permit was issued. You can also probably find from the electric company when the first service was given.

Mr. Sellers: Your Honor, the fact that a plant may have been built at a particular date is no assurance that the particular plant here was built at that time.

The Court: You can also investigate and see whether or not there was more than one plant at that particular location.

(Testimony of Fred W. Bodinson.)

Mr. Sellers: Your Honor, we can do these things, but they are not in this record here. The fact that we can do it is no——

The Court: I have intimated I would give you time to make an investigation.

Mr. Sellers: Yes, your Honor, and we may have to take advantage of it.

The Court: I have indicated I would give you a reasonable time.

Mr. Sellers: Your Honor mentioned something about [557] Thursday or Friday of next week, and I will be out of town.

The Court: I want to get rid of this witness if I can, so let's proceed.

Mr. Sellers: I know you do.

The Court: Inasmuch as I have broken into your line of thought, I want to say this to you, that when I said a moment ago to you about assessing the costs, it included attorneys' fees. I don't want you to get any idea that I am making a difference between attorneys' fees and costs.

Mr. Sellers: I never thought so, your Honor.

The Court: I want costs to include attorneys' fees.

Mr. Sellers: I would like to clear up one thing for our own information, your Honor.

The Court: All right.

Q. (By Mr. Sellers): With respect to Defendants' Exhibit K, on sheet No. 4, we find reference made to one 6-ton weigh hopper with cement compartment and 120 gallon water tank integral per

(Testimony of Fred W. Bodinson.)

drawing L-2348 and consisting of: Can you tell us where that drawing L-2348 is?

A. It should be in our files. When I picked up these things last night I ran through a whole stack of files to get as many drawings as I could out, and whether I overlooked it or couldn't find it or it wasn't in the same group, I don't know, but I am strongly convinced we have a film of it, a microfilm of it. [558]

Q. You don't know where the drawing is?

A. At this moment, I don't. I suspect it is in the files where it should be, but I didn't check all the drawings and all the tag numbers.

Mr. Sellers: That's all, your Honor.

Mr. Lyon: No further questions.

The Court: May this witness be excused?

Mr. Lyon: Yes, he may.

The Court: You may be excused.

(Witness excused.)

Mr. Lyon: We have no further witnesses after we are through with this man.

The Court: You may proceed with your cross-examination of the other witness.

Mr. Sellers: Thank you.

E. F. CORNETT

a witness called by and on behalf of the defendants, having been heretofore duly sworn, was examined and testified further as follows:

Cross-Examination
(Continued)

By Mr. Sellers:

Q. Mr. Cornett, you will remember that in connection with Plaintiff's Exhibit 20, I asked you when the cement fell [559] from the center hopper G and from the aggregate hopper Y, where they fell to, where they came together, and I made a mark, rather, I drew a line from the letter X to a point in the collector hopper L and asked you if that was the point and you said yes, is that correct?

A. That is correct.

Q. You have also testified, however, that when the cement and the aggregate fell from the hoppers, they struck, came together three-quarters of the way down the chute, is that not correct? A. Yes.

Q. The point X that I marked is at the top of the chute and not three-quarters of the way down. Which is accurate?

A. Three-quarters of the way down.

Q. Let me finish, please. Which is accurate, the top of the chute or three-quarters of the way down?

A. Three-quarters.

Q. Then they don't come together at the top of the chute, do they? A. No.

Q. That is wrong? A. That is wrong.

Q. All right. Now, let's put a mark here where

(Testimony of E. F. Cornett.)

you think they would come together on this [560] chute? A. There is a mark right there.

Q. Right here.

A. There is a mark on there already.

Q. I will put a big circle there and we will run a letter out to an M for that. Now, that is where you say they now come together, right there?

A. That's right.

Q. Is that three-quarters of the way down the chute? That is in the upper one-quarter.

A. It is about three-quarters of the way down the chute.

Q. In other words, where the M goes through, that is three-quarters of the way down the chute?

A. That's right.

Mr. Sellers: I ask your Honor to take notice of the fact that the point M, which the witness now states is where the cement and the aggregate come together, is near the top of the chute, the top of the chute being here, and not three-quarters of the way down, as the witness states, and the witness formerly stated they came together at X, and he now states they come together at M, and he has previously testified they come together three-quarters of the way down. X and M are neither of them three-quarters of the way down.

The Witness: That would be three-quarters of the way down the chute. [561]

Q. (By Mr. Sellers): What kind of a chute do you have in this Alabama plant as actually built?

A. A V-type chute.

(Testimony of E. F. Cornett.)

Q. What is a V-type chute?

A. Broad at the top where the aggregate entered, and it tapered down to go into the mixer.

Q. And how long was it?

A. It was approximately 6 foot, 6, 7 foot long.

Q. Was it circular at the top?

A. Right at the top, it circled up so that there would be no spillage.

Q. And about what diameter was it?

A. At the top it was about three and a half feet.

Q. Three and a half feet in diameter?

A. Yes.

Q. How far down below the bottom of the aggregate hopper was it?

A. Approximately two feet.

Q. Two feet below, and how wide was the aggregate hopper above the collector?

A. That I don't remember any more.

Q. How does it happen you can remember the dimensions of the collector and you can't remember the dimensions of the——

A. I didn't give you any particular dimensions on the collector. [562]

Q. I am sorry. Didn't you just say that this is about—what did you say the dimension of the top of that collector was? A. About four feet.

Q. Now, I would like to ask you, what is the dimension, if you know, of the bottom of the gate?

A. I have forgotten.

Q. You have forgotten. Didn't you say that in your work you worked around this plant and that

(Testimony of E. F. Cornett.)

you had occasion to repair all parts of it over a period of 14 years? A. That's right.

Q. Well, how many times did you look at that gate?

A. Dozens and dozens of times, but it has been so long ago I just don't remember the dimensions.

Q. In 14 years you looked at that gate every day or six days a week, and you can't tell us what the dimension of the bottom of the gate was?

A. No, I don't remember.

Q. Can you tell us whether it was round or square? A. A flat sliding gate.

Q. All right. The opening which the gate closed, was that round or square?

A. It was flat and square.

Q. Well, was it——

A. It ws square. [563]

Q. You don't remember how big it was on the side?

A. No, I don't remember the dimensions. It has been too long ago now.

Q. All right. The cement outlet up above that, what was the dimension of the cement outlet?

A. It was 12 by 18.

Q. How does it happen you can remember the cement outlet which is—— A. Well, it was.

Q. Pardon me. I haven't finished—which is positioned only about a foot from the aggregate outlet and you can't remember the aggregate outlet? I would like to have you explain that.

(Testimony of E. F. Cornett.)

A. I have reason to remember that because we repaired that more often.

Q. But you had to go through the aggregate outlet to get to the cement outlet, didn't you?

A. Yes.

Q. So actually you were bumping your head on the aggregate outlet more than you were on the cement outlet, weren't you?

A. Yes, but I still don't remember the aggregate dimensions. If I remembered them, I would state it, but I don't remember them offhand.

Q. What was the size of the cement valve that closed [564] the cement hopper?

Mr. Lyon: Your Honor, may I question the materiality of this, what the dimensions have to do with this?

The Court: I don't know. I think he has a right to cross-examine. He may be trying to show he doesn't have a very good memory. I don't know. Go ahead.

Q. (By Mr. Sellers): What is the size of the cement valve at the bottom of the cement hopper?

A. 18 by 12.

Q. What was the height above the ground of the bottom of the cement hopper?

A. From the aggregate hopper to the cement hopper?

Q. I beg your pardon. From the aggregate hopper to the ground, how far was it?

A. Clear to the runway?

Q. Clear to the ground.

(Testimony of E. F. Cornett.)

A. That would be clear down to the runway. About 35 feet.

Q. 35 feet. The length of that chute you have stated was how long?

A. Approximately 7½ or 8 feet.

Q. 7½ or 8 feet. If you took a section of it, was it round in section or was it triangular?

A. Round.

Q. Round in section. [565] A. Yes.

Q. Its central axis was vertical? It didn't slope off as we have shown in this drawing, is that correct? A. Yes.

Q. In other words, instead of this hopper going down, as I will now mark in dotted lines, it didn't do that?

A. It went straight down from the aggregate gate. This is not drawn very clearly. It went straight down the aggregate gate so that——

Q. In other words, it didn't slope over to the side as here? A. No.

Q. Did you put any water or was there any water put into the aggregate and cement as it came out of the hoppers?

A. As it come out of the hopper, yes.

Q. Where did you put the water in?

A. There was a valve you threw over here in the scale hopper——

Q. No, no, let's refer to this drawing.

A. ——and there is where your water hopper is, see. You threw the valve here and there was a pipe coming from this water thank and it circled down

(Testimony of E. F. Cornett.)

underneath the hopper and went right down in this loading hopper, back hopper here, and went right into the mixer.

Q. In other words, you simply dumped a stream of [566] water into the hopper L down at the bottom, just a single stream of water?

A. That's right.

Q. You didn't try to encircle the aggregate stream with the water?. A. No.

Q. Just dumped it right in?

A. No. The water went into the mixer proper.

Q. Into the mixer proper. I see. Mr. Murasko said you and he had worked together six years, I believe. However, you said that he and you had worked together for nine years. Now, I would like to have you tell me whether you worked with Mr. Murasko for six years or nine years. Do you remember?

A. I worked with him from 1930 to 1942.

Q. 12 years.

A. He left the plant in 1942. I had worked with him in 1930, and we had been apart, as I stated, when there was a depression on, and I was not there for a time, and then I came back.

Q. Well, I would like to know just how long you worked together.

A. He was there all that time.

Q. I know, but I would like to know how long you worked at that plant under Mr. Murasko. Was it six, nine or twelve years? [567]

A. As a superintendent, six.

(Testimony of E. F. Cornett.)

Q. As superintendent, six.

A. That's right.

Q. Did you work there in any other capacity?

A. Did I work there in any other capacity?

Q. Yes. A. No. Just as an operator.

Q. So really you worked under him for six years? A. Yes, sir.

Q. Not 12?

A. No. We worked a total together with the company of 12.

Q. Didn't you say you took a trip in 1936?

A. That's right.

Q. Isn't it a fact that you and Mr. Murasko started working together in the very year you took a trip? A. No.

Mr. Lyon: Your Honor, we have been over this ground before. I object to the question. It is repetitive.

The Court: Well, I won't restrict the cross-examination until 4:00 o'clock. At 4:00 o'clock I will restrict it in toto.

Mr. Sellers: Will you read the question?

(Question read.)

Q. (By Mr. Sellers): Were you working with Mr. Murasko [568] before or after you took that trip?

A. Probably working with him at the time.

Q. Working with him at the time. All right. How long had you been working with him at that time?

A. '30 to '36.

(Testimony of E. F. Cornett.)

Q. In other words, six years, and then you left there in 1942? A. No. I left there in 1947.

Q. And he left in 1942?

A. That is correct.

Q. So really you were working with him for 12 years? A. Yes.

Q. How did we get nine years? Where did that come from? A. I don't know.

Q. Nine years doesn't mean a thing to you?

A. Not a thing.

Q. You don't remember saying before you worked with him for nine years? A. No.

Q. We have a gate on the cement hopper, do we not? A. Yes.

Q. How is it operated? A. By an air ram.

Q. And where was that air ram [569] positioned?

A. At the side of the hopper here.

Q. Would you understand, then, that the ram to operate the gate on the cement valve actually extended right out through the aggregate hopper?

A. Yes, sir.

Q. And didn't the aggregate and all that fall on the ram?

A. No. There was a baffle over it.

Q. A baffle over it? A. Yes.

Q. And it protected it from the aggregate?

A. That is correct.

Q. So that the valve—how did you operate that? How did you protect it?

A. There was a baffle plate through here. Mr.

(Testimony of E. F. Cornett.)

Murasko didn't add that when he drew this picture here. There was a baffle plate coming down over it and the air ram worked under the baffle plate on to the cement gate.

Q. Would you like to draw that in in red on that—if I may, Mr. Lyon? Is that all right?

A. You would have to erase a hole through there.

Q. You just put in the dotted lines in red so we know about where that goes.

A. A big ram here, I mean a shaft, and your air ram would be out here. [570]

Q. Where was this protecting baffle?

A. Here.

Q. That is over the top of it?

A. That is correct.

Q. Do I understand that the ram moves with the weigh hopper, or how are you going to weigh that weigh hopper if you have got this ram connected outside there? The gate is rigidly connected to the ram, isn't it? A. It is floating.

Q. What do you mean by that?

A. It floats in the air there.

Q. What pulls the gate out if this is floating in the air? A. Air.

Q. Air pulls it out? A. That is correct.

Q. Well, you have to have a leverage here for something to get hold of so when you pull here the gate will come open, don't you?

A. It is mounted on this baffle plate up here on a bracket to secure the air ram itself.

Q. The ram is mounted on this bracket?

(Testimony of E. F. Cornett.)

A. Yes, on the bracket.

Q. But the bracket is carried by the aggregate hopper, is it not? [571] A. Yes.

Q. So then do we find that the ram is mounted by the—is connected to the aggregate hopper?

A. Yes.

Q. Well, now, if the cement hopper is supposed to move only with the aggregate hopper, wouldn't the fact that it is connected through the connection between the ram and the baffle, would that not adversely affect the accuracy of the weighing of the cement hopper?

A. No, because it is mounted on flexible springs.

Q. You mean those springs didn't exert any force? A. No.

Q. What did you have them there for?

A. To get away from anything that would hold the cement hopper up.

Q. It didn't exert any force? Springs usually exert force. Why didn't you omit them?

A. Because they were on there for that purpose, to give this free play.

Q. Well, do I understand that your gate upon your cement hopper is connected through its own ram through a bracket to the aggregate hopper, which would seem to mean, if I understand what you say, that the two do not have completely independent movement.

A. The ram stood still. Only the gate [572] moved.

Q. All right. The ram stood still, so when you

(Testimony of E. F. Cornett.)

wanted to weigh the cement in the cement hopper with the ram standing still, how can you weigh it accurately? A. Your scales are set that way.

Q. In the discharge of your aggregate hopper, does the aggregate hopper fall down all the way around in a circle? A. Yes, sir.

Q. Don't you have a baffle here, a protecting baffle or bracket?

A. Yes. It is pitched like this where it goes over the top of that.

Q. Where it goes over the top doesn't it tend to produce an open area here on the side?

A. No, because it falls over the top and comes back together again.

Q. Well, wait. You have seen it do that?

A. Oh, yes.

Q. Is it a fact that the inner walls of your aggregate hopper extend down substantially to the gate valve, is that correct?

A. Not all the way down.

Q. Not all the way down. Do they extend as shown here? A. Practically.

Q. When did you observe that these inner walls of the [573] aggregate hopper do not extend into the plane of the valve?

A. You can see that each time you worked on it. I had to clean it up.

Q. You are sure that if the drawings showed that inner wall extending down the plane of the valve, that they would be in error?

(Testimony of E. F. Cornett.)

A. I didn't see the blueprint. I don't know. But I know they didn't go clear down.

Q. You do know that a drawing showing this plant construction with that baffle going down to the slide plate valve is in error because you saw this for 14 years and you know that doesn't go that far down?

A. I would say that is correct. I didn't see the blueprint. If the blueprint shows it, it is not right.

Q. And to the extent that that is wrong, the blueprints are wrong or any showing that shows it that way is wrong?

A. That is approximately right the way it stands right there.

Q. And about what is this distance here below the end of the inner baffle and the gate?

A. Oh, about eight or ten inches.

Q. Eight or ten inches. That is the way you remember it? A. That's right. [574]

Q. You were with this company 14 years at this plant, Mr. Cornett. Were there any changes that took place in this construction during the time you were there? A. What do you mean?

Q. Well, I will limit my question to the relationship of the aggregate and cement hoppers.

A. No.

Q. They were that way when you first went there? A. As originally designed: yes.

Mr. Sellers: I move that answer be stricken. It is a conclusion of this witness. He doesn't know how it was originally designed. He only knows how he first saw it.

(Testimony of E. F. Cornett.)

The Court: It may go out.

Mr. Sellers: Please read the question.

(Question read.)

The Witness: Yes, sir.

Q. (By Mr. Sellers): And it remained that way without change during the whole time you were there? A. That's right.

Mr. Sellers: That's all, your Honor.

Mr. Lyon: No further questions, your Honor.

The Court: All right. You may step down.

(Witness excused.)

Mr. Lyon: The defense rests, your Honor. [575]

Mr. Sellers: We are tired, too, your Honor. We rest.

The Court: I have been looking at my calendar. How much more time do you anticipate it is going to take to complete the case?

Mr. Sellers: We are going to spend a few days to try to check upon this new and surprising evidence.

The Court: I am going to give you time

Mr. Sellers: I know you are, your Honor, but what additional time will be taken will be dependent upon what we discover, but I will be surprised if we will require all of another day. We may not require more than half a day.

The Court: How about March 30th? That is two weeks from today. Don't tell me you are going to take depositions on March 30th.

Mr. Sellers: Your Honor, I am taking one in New York on the 26th and I will be back here on the 27th.

The Court: I thought you said the 22nd and 23rd.

Mr. Sellers: Those are in Philadelphia, your Honor. I will be leaving here on the 21st and I will be in Philadelphia until that week end and then in New York.

The Court: If it goes over beyond the 29th, I am starting a big antitrust case in April, and the only thing I can do in April is give you a Monday afternoon.

Mr. Sellers: That would be all right.

Mr. Lyons: That is perfectly all right with me as long [576] as Judge Harrison doesn't want me. I am starting a case there on the 17th of April.

The Court: How about April 23rd? That will give you nearly a month. That will give you time to investigate.

Mr. Sellers: I don't have my calendar, but as far as I know, that is all right.

The Court: I will continue this case until April 23rd at 2:00 o'clock in the afternoon. If you don't have too much testimony, I will hear your arguments.

We will now recess until tomorrow [577] morning.

Monday, April 23, 1956—2:00 P.M.

The Clerk: No. 17,121-HW Civil, C. S. Johnson Company vs. Merle Stromberg, et al.

Mr. Lyon: Ready, your Honor.

Mr. Sellers: Ready.

The Court: On this Stromberg matter, I continued it until this afternoon in order to give the plaintiff an opportunity to make an investigation in San Francisco to determine whether or not the plant as described at the trial had been established when the witnesses said it was established and whether it did the things the witnesses said it did. I am perfectly willing to hear you at this time.

Mr. Sellers: May it please the court, the plant dates back to 1931, your Honor will remember, it is so alleged, and it is the testimony of one of the defendant's witnesses that the plant was disintegrating in 1947 and the plant was scrapped. We were unable to find that was not a correct statement. As of this time there is no plant so far as we can ascertain that can be checked to see what was in it.

The Court: Well, I am satisfied, as I said before, there is some evidence in the Water Department or in the Power & Light Department as to when service first was given in this plant.

Mr. Sellers: If I may say so, your Honor, that would [580] only establish that there was a plant there.

The Court: That's right.

Mr. Sellers: We are not particularly concerned with whether or not there was a plant there, but whether or not there was a plant there which anticipated the patent here in suit, and whatever might be in the Water Department or in the way of issued licenses would not establish that point.

The Court: What are we going to do with the testimony of these witnesses?

Mr. Sellers: Well, your Honor, I am going to throw it out, if I can.

The Court: All right.

Mr. Sellers: In other words, there has been testimony given here, which was not noticed properly, and your Honor has tried to do equity in that connection by giving us additional time, for which we thank you.

On the other hand, it was a fact that at the time of the trial we didn't have the opportunity to study the drawings that were produced and to examine these witnesses with that preparation. The witnesses are no longer here, and we are not asking that they be returned at this time, but we believe that under the governing rules of law this alleged prior use is not properly before this court, and that which is before the court does not carry conviction.

It is our understanding that in addition to pursuing [581] any additional evidence this afternoon, we would also have our final arguments. Am I right in that, your Honor?

The Court: I will be glad to listen to you.

Mr. Sellers: I think, then, that is where we should go from here.

Mr. Lyon: Do you have any objection to my introducing this?

Mr. Sellers: I will object to its being introduced if you offer it, certainly.

Mr. Lyon: Two matters, your Honor. First, you will recall during the time Mr. Bodinson was on the

stand, he identified a series of drawings of this plant, one of which was missing, and there was a request by counsel to produce it, and I have this drawing.

Mr. Sellers: I don't believe that shows in the record, Mr. Lyon. I believe that was off the record, and whether it was mentioned or not, no proper foundation has been laid, its relevancy is not shown, and we object to it.

Mr. Lyon: I merely produced it for your convenience. I do have a copy, your Honor, of the Bureau of Buildings Inspection for the City and County of San Francisco for the Alabama Street plant in question dated June 24, 1931. I would like to offer this in evidence on this basis. The copy I have is not certified. I believe it is a public document and you could take judicial notice of it, but may I put it in evidence [582] subject to my replacing it with a certified copy?

Mr. Sellers: I object to it upon the ground no proper foundation has been laid, it has not been properly authenticated, and certified, and there is no relevancy shown.

The Court: I will have to sustain the objection upon the ground that you haven't got it certified. I don't think I can take judicial knowledge of a filing in San Francisco, can I?

Mr. Lyon: Your Honor, I am not an authority on that. My only question was may I introduce this and have it ignored if I don't substitute a certified copy?

The Court: You can have it marked for identification, if you wish.

Mr. Sellers: I object to it in evidence, your Honor.

The Court: I don't think you can object to having it marked for identification.

Mr. Sellers: I don't see that it is relevant, your Honor. Well, I can't object, I don't think, either.

The Court: It may be marked for identification only.

The Clerk: Defendant's Exhibit Q for identification.

(The document referred to was marked Defendant's Exhibit Q for identification.)

Mr. Sellers: Except I could object on the ground that the defendant has rested.

Mr. Lyon: We have a stipulation that you and my predecesor in interest entered into which may well cover this. [583]

Mr. Sellers: I am referring to the entrance of this, certified or uncertified. If I have stipulated——

Mr. Lyon: Your objection does not go to the question of certification, then?

Mr. Sellers: If it is relevant and admissible, I will abide by my stipulation. I do believe the record shows uncertified copies can be admitted subject to verification. I do recall that.

The Court: We will have it marked for identification only, and it will stay here.

Mr. Sellers: I am sorry, Mr. Lyon. I didn't have that in mind.

The Court: I think the record is sufficient without that, Mr. Lyon.

Mr. Lyon: Well, your Honor expressed some interest in it and I wanted to offer it.

The Court: I know that for the purpose of indicating to the plaintiff I thought the plaintiff could get certain information relative to when this plant was established and when service was first given to it, that's all.

Mr. Sellers: Thank you, your Honor.

The Court: All right, now. You may proceed.

Mr. Sellers: Before I start proceeding, your Honor, might I ask how much time we have?

The Court: How much time do you want? [584]

Mr. Sellers: I conceive that very well we will need, depending upon the number of questions your Honor asks, and I invite those, but we are going to need an hour probably for the purpose of opening and rebuttal.

The Court: I will give each side 45 minutes.

Mr. Sellers: That will hardly do, your Honor.

The Court: I give only 30 minutes when they have to talk to a jury. You don't win lawsuits by argument, but by evidence.

Mr. Sellers: Your Honor, if we don't win this lawsuit here, we may not win it at all.

The Court: That's right.

Mr. Sellers: May it please your Honor, this is an infringement action, your Honor will recall. The action was brought by the C. S. Johnson Company, a corporation, manufacturing batching plants and batching equipment.

The defendant is an individual doing business under the name of California Batching Equipment Company, Mr. Stromberg.

It was alleged that he infringed certain things claimed in Johnson patent No. 2,138,172.

Your Honor will recall that there was some little confusion about the fact that we didn't point out the patent had expired, and I want your Honor to know in looking over my notes for an opening statement, the second line said that the [585] patent had expired, so I would have told you, your Honor, had I had the opportunity to make an opening statement. The patent did expire. On the other hand, I repeat that there would not have been one iota of change in our side of the case had that not been the case.

The patent was issued to the C. S. Johnson Company and it contained certain claims of which we allege claims 1 to 5 were infringed.

Our first witness was a man named Mr. Wright, your Honor will recall. He was a man with a very considerable background in the field of concrete and batching equipment, an inspector for the City of Los Angeles, very fine background. I believe his testimony carried conviction.

Mr. Wright applied claim 1 of the patent in suit to the Exhibit 16, I believe it was, of the plaintiff's exhibits, and clearly showed that the claim read upon the Stanton construction. It was also applied to the Johnson construction.

Exhibits 14 and 16 were used in that connection, and your Honor will recall that the two plants were

shown there side by side. The witness read and was given the individual parts of the claims and he applied those individual parts to the construction of those two plants.

I don't believe, your Honor, there is any reason to doubt but that claim 1 of the patent in suit does read upon both the patented construction and upon the construction made [586] by the defendant here, known as the Stanton plant.

Furthermore, I believe the record will show Mr. Stromberg's own testimony was to the effect that the provisions of claim 1 would read upon all of his plants having a central cement hopper which is independently movable.

Claim 5 was then refefred to and that claim was applied by the witness Wright to the Johnson and Stanton plants.

Your Honor will recall that claim 5 of the patent reads:

> "* * * and instrumentalities to supply water to the flowing shaft of aggregates in a tubular stream surrounding said aggregates and flowing into same at an angle thereto."

It was shown that that particular claim read upon both the patented construction and also upon the Stanton plant construction.

Mr. Stromberg also testified that the showing of Exhibit 11 illustrated the construction of the Stanton plant and was typical of all of his plants having a central hopper and independent weighing means.

although he also stated at a different time that only the Stanton plant had the water, I do believe.

So I think there is just no question but what claims 1 and 5 read upon the alleged infringing constructions as illustrated by those exhibits, which exhibits were properly set [587] forth and identified as being accurate and made by a man who examined the plants and made them to scale, and made them accurately.

I think infringement was established. Now, if infringement was established, prima facie infringement, there remains a question of whether or not there was invention present and whether or not there was novelty.

Now, relative to the question of novelty, the patent art cited by the defendant here to anticipate simply fails to anticipate. That prior art doesn't teach a central cement hopper situated within the aggregate hopper. It fails to teach cement and aggregate hoppers having their own weighing means, and it fails to teach a cement hopper discharging centrally through the discharge of the aggregate hopper, and I use those various elements in combination.

The testimony of the witnesses Wright, Pearman and the defendant Stromberg was in agreement that a hopper in this field includes a body and an inlet and an outlet.

None of the witnesses had ever seen a hopper which did not discharge in its lowest point, and they testified in order to be operated the discharge had to be at its lowest point or all of the cement

wouldn't fall out. That obviously applies to the aggregate hopper, too.

The prior art which apparently was relied upon by the defendant included Robb, 1,750,244 and the patent to Johnson, [588] 1,687,499.

The Robb patent is deficient as an anticipatory patent in that it fails to teach a hopper within a hopper, and instead it has side-by-side arrangements, and there is no discharge of cement through the discharge of aggregate as is inherent where the cement hopper is within the aggregate hopper.

We have the improved construction result, your Honor, that our cement is discharged through the flow of aggregate, and that simply is not true in Robb. There was no independent cement hopper within the aggregate hoppers at all and, furthermore, there was in Robb no spray around the aggregate shaft encircling the cement shaft as called for by claim 5.

As to the Johnson patent, which would seem to be the next patent of greatest interest to the defendant, there is no hopper within a hopper. There is no cement bin within the center of the discharging aggregate. There are no independently movable hoppers. There is no central feeding of cement into the shaft of aggregate. There is no discharge of cement through the discharge outlet of the aggregate, and there are no scales. In other words, your Honor, it is crystal clear that the two references which we sense the defendant relies upon most definitely fail completely to anticipate.

None of that art teaches the patented construc-

tion which renders it possible to obtain the advantages which our construction obtains: [589]

1, that the cement must discharge through the aggregate outlet, and

2, that the aggregate will fall through the aggregate outlet first and so precede the cement and thereby prevent the cement striking metal parts and the cement striking water in the mix truck and balling up. That was very definitely important. Our Mr. Wright so testified, and the witness Pinne so testified.

Now, relative to the presence of invention in our patented construction, it has been suggested that no invention would be required to make that construction and that individual weigh hoppers were old and that no invention would be required to bring spaced hoppers together.

Well, if bringing those hoppers together would obtain our result, that wouldn't be a bad argument, but the simple fact is that you could bring them together, but you wouldn't get our result unless you provided a single discharge outlet for your aggregate and discharge your cement through the discharge of the aggregate, and that is nowhere suggested except in the patent in suit.

Certain advantages of our construction comprise pre-mixing at the time of discharge to effect a reduction in the mixing time necessary to mix.

Your Honor will recall there was some discussion about how important that was. The fact is where these trucks [590] are coming into these plants one

after the other, the cutting down of a few seconds in loading time becomes important.

Furthermore, it is an advantage to have the insurance that the product will be satisfactory, and that it just won't be right part of the time.

The protection of the cement by the enclosing wall of aggregate, which characterizes our construction and which does not characterize the construction of any of the prior art, singly or combined, is this. We have less air pollution in an area such as this, and certainly anything which will give us less air pollution in this area here is important.

It prevents the "hanging up" of the cement in the discharge passages, and it prevents the balling up of the cement in the mixer. Your Honor will recall those terms. It was brought out that under certain conditions where the cement came from the side, the moisture from the aggregate would cause the cement to gum up, to hang up in the batching unit, and also where it falls down into the mixer first, into the mixing truck, it would ball up if it hits the water.

Our construction prevents improper discharge through having the aggregate below the cement so that the aggregate must fall out first, and also it has the advantage, by making the construction we do, you get a lower plant height, and a lower plant height obviously can result in decreased costs.

There is a new element present in the combination of [591] our patent in that we provide a single discharge upon opposite sides of the central cement

hopper. There is no teaching in the prior art of an arrangement of those various hoppers as we have them. There is no teaching in the prior art of our improved result.

I respectfully point out to you that if I had more time I could go in and cite the law on the fact that if you have a new arrangement and a new result, you have all the elements of a patented object.

I would like now to touch just briefly upon the testimony of the witnesses. I have referred to Mr. Wright and the fact that he applied the claims 1 and 5 to the patented construction and to the construction of the Stanton plant. The fact of infringement was clearly established.

Mr. Wright, whose testimony is entitled to weight, testified he to his personal knowledge could operate a Johnson type plant under wind conditions which would make it necessary to shut down other types of plants, and he testified that in his opinion the Johnson type plant was superior. He testified concerning the pre-mixture of the cement and aggregate as the two were discharged from the hopper, and that that would provide a superior mix, that it would eliminate difficulty in the mixing truck and would even reduce the danger of balling up.

There was just no question but what Mr. Wright believed that the patented construction was superior for the [592] reasons mentioned.

He also testified, as I have said, that a hopper is essentially a body having an inlet and an outlet.

The witness Buckler was provided who was brought in to establish commercial success. We

could have brought many other witnesses for that purpose in addition, but there is just no question but what the particular construction of this patent has been really commercially successful.

Mr. Buckler testified since about 1951 about 60 per cent of all plants sold in the area in which he sells, that is the 11 western states, 60 per cent of all plants sold had been Johnson type plants. There is little doubt, I believe, that the evidence shows that the Johnson type plant has been a commercial success.

Your Honor will recall that Mr. Pearman was called as a witness and he testified his Gardena plant and his Stanton plant, he was the owner of both, were substantially the same except that the Stanton plant was bigger and better, and that they functioned the same otherwise.

There was also evidence brought out later that only the Stanton plant had the water, but except for that Mr. Pearman stated they were the same. I don't believe he made that distinction.

Mr. Stromberg was brought in, you will remember, the defendant here, and he testified that he obtained the [593] concept of the arrangement of the plant and that the Gardena plant was the first plant, that he obtained that arrangement concept from Mr. Pearman himself. That didn't ring a logical bell to this speaker. It seemed reasonable Mr. Stromberg must have known more about plants than Mr. Pearman and, as a matter of fact, your Honor will remember later on the witness' stand Douglas Pinne testified that he, as one of the execu-

tives in charge of distribution for Consolidated Rock Company, the biggest company of its kind in the West, took over the operation, and Mr. Stromberg worked for him. That at the time he took over that operation, there were a number of plants, two of which were of the Johnson type, and at that time Mr. Stromberg had charge of the repair of all those plants, and it seems quite evident that Mr. Stromberg either didn't remember that at the time he built the Gardena plant he knew about the Johnson plants from having worked on them at Consolidated Rock, or that he intentionally misrepresented the knowledge.

It seems more likely that Mr. Stromberg, a builder of plants and a man who worked on those plants, would have gained that knowledge from his contact with the plants, having worked on them, rather than from Mr. Pearman who, according to his own testimony, had never built or never owned a plant prior to that time.

Mr. Stromberg was rather loath to admit, your Honor will recall, that there was any mixing action in the discharge [594] of the aggregate and cement hoppers together. The analogy of the ball rolling off the roof was pointed out to Mr. Stromberg, and how could it be prevented that the aggregate coming from the sloping sides would not describe an arc into the path of the cement so that certain intermingling and mixing would result, and Mr. Stromberg wasn't able to answer that question.

As a matter of fact, the defendant's own witness, Mr. Wisniski, later in the trial admitted that there

would be intermingling. He didn't like the word mixing, which in his opinion had a particular meaning, apparently it was a word of art for him, but that there would be an intermingling of the aggregate and of the cement was admitted by Mr. Wisniski.

Now, on behalf of the plaintiff, Douglas Pinne was brought in. He was superintendent of distribution for Consolidated Rock Products Company which, as I have said, is one of the largest concrete mixing plants in the world. He had some 23 plants, including plants of the Johnson type, and under his jurisdiction there were mixing plants, and he was qualified as an expert as a man of practical experience dating back to 1925. I think it rather clear to your Honor that his testimony was entitled to substantial weight.

He testified that with the side feed of the cement going into the collecting hopper the cement is at times prevented from going down by the flow of aggregate, and that the cement tends to come back in the reverse direction, in the [595] direction from which it came, and to fly out in all directions from the collector hopper, resulting in air pollution and, obviously, in inaccuracy of mixing.

He also stated that when the relationship was as in the Johnson plant, there was less dust and less air pollution, and accomplish more accurate mixing.

Mr. Pinne also stated there was a moisture problem present in the side feed type of plant which is eliminated in the Johnson plant. By that he meant that the aggregate contains moisture and when the

aggregate feeds down by the cement opening there, the moisture from the cement which has been stored there, will adversely affect the cement and will result in a gumming up relationship.

He also pointed out that balling up is eliminated entirely in the Johnson type plant.

He also pointed out that where the mix is dry and batched into a dump truck, the relationship of the side feed is undesirable in that the cement tends to go to one side of the dump truck and the aggregate goes to the other. That is a dry type of plant.

Mr. Pinne was definitely of the opinion that the central feed type, which characterizes the Johnson plant, is superior to anything on the market.

I would say that upon listening to Mr. Pinne, one couldn't hear that testimony without coming to the conclusion [596] that the Johnson type plant, in his opinion, which agreed with Mr. Wright's, was superior.

Then we have the witness Mr. Wisniski for the defendant. Mr. Wisniski was a bachelor of science with a degree in chemistry, primarily a chemist, and he testified that in his opinion getting the water in there in the right proportion was the most important thing. He contended there would be no mixing of the cement and the aggregate, but upon going into the matter we found that he didn't mean to say by that there would be no intermingling. In fact, he admitted that in a Johnson type plant in the discharge operation there would be intermingling of the cement and the aggregate which,

your Honor will recall, is not taught anywhere in the prior art.

Now, your Honor, we come to the defendant's witness Murasko, who testified in connection with the plant in San Francisco. He testified that in 1931 he was employed and at that time he said that the Bode Company constructed a plant on Alabama Street in San Francisco, and he went on to define what he thought that was.

Your Honor will recall that there was a complete absence of any documentary proof or evidence to support what Mr. Murasko stated, and that his recollection was entirely, so far as anything he brought in was concerned, based on what he remembered, unless, your Honor, he had his recollection refreshed by other drawings. [597]

Your Honor, my co-counsel will, after I have completed, like to discuss the question of the weight and the availability of Mr. Murasko's testimony and its anticipatory effect where it is completely oral, some 25 years after the event, unsupported by documentary evidence. Your Honor, such testimony is to be examined extremely closely, particularly where the corroboration is extremely sketchy.

The Court: What are you going to do with the plans? Are you going to disregard the plans entirely?

Mr. Sellers: Those plans, your Honor, do not belong in this case, as I will try to show you. They have been admitted by virtue of what is known as the business-record rule, and I think before I have completed my argument, either I will convince you

that they are not properly competent evidence in this case, or you will believe that I don't understand the rule, one way or the other, because for my money those records were business records, we will admit, but your Honor was under the misimpression that all that was necessary to get those into the evidence was to show that they were business records. The rule just doesn't read that way, and I will discuss that point in a minute, your Honor.

Mr. Murasko testified working under him was Mr. Cornett.

Mr. Murasko didn't say anything about any plant that had a water discharge meeting the terminology of claim 5, your [598] Honor, and if you accept everything Mr. Murasko said as true, claim 5 still stands unanticipated.

Mr. Cornett testified, and it will be remembered he said he worked for the Bode people from about 1933 to 1947. He wasn't quite sure of his dates, he couldn't tie them in with any public record, unless it was the fact that he visited his uncle in Vancouver, British Columbia, and his uncle was mayor. Other than that, he couldn't remember anything. He took trips, but there was nothing to substantiate the dates he alleged.

His testimony was not very helpful. He was able to remember the dimensions of the hopper, your Honor will remember, but he couldn't remember the dimensions of the discharge gate. Here was a man that, according to his testimony, had to crawl through that gate to work on the cement gate. It

was suggested that he bumped his head on the discharge opening or gate, rather than on the cement, and yet he couldn't tell how big it was. He wouldn't even hazard a guess.

Your Honor, it will be suggested that possibly he got his information from seeing the drawings at a later date.

Now, we come to the matter of Mr. Bodinson, president of Bodinson Manufacturing Company, San Francisco, and the ozalid prints which were brought in by Mr. Bodinson. What was Mr. Bodinson's testimony? He stated that he had been president of the Bodinson Manufacturing Company, San Francisco; [599] since the year 1940. He was first employed by the company in 1928 or 1929, when he was 16 or 17 years of age. That originally he used to work on Saturdays with his father, and that at the time he said the Alabama Street plant was being constructed; he went there with his father, your Honor will recall, and did some painting. He didn't do the construction work. He didn't have any contact with the drawings nor with the engineer. He was unable to state of his own personal knowledge or to identify any of the drawings that were produced and to connect them with the construction of the plant.

He testified that he had not compared those drawings with the plant construction at that time, and on cross-examination he testified that he had not at any later time compared the plant drawings with the plant.

In other words, Mr. Bodinson was president of the company. He produced some drawings, but he failed, and there was no attempt for him to connect those drawings with that plant. He produced drawings from his company records.

He produced a large number of exhibits which he stated, in the wording of the defendant's counsel, related, according to the company policy, to the Alabama Street plant. He didn't say they related to that plant. He didn't know. He testified he never saw the drawings at that time. He testified he had never compared them later. He was in no position, by his own admission, to say that those drawings related to [600] that plant, but according to company policy, whatever that means, he testified he took the drawings from the files of the company, and he said that the files were maintained as a matter of company policy.

Now, your Honor admitted those drawings under the provisions of 28 U.S.C. 1732. Well, your Honor, I would like to point out to you that those drawings, in my opinion, were erroneously admitted, and having been erroneously admitted, the question now is what weight is to be given to them. If every company record were by virtue of the fact that it becomes a company record to be competent and relevant, what an easy way to obtain evidence and to bring in anything. You don't have to say, "It is my evidence. I produce it. I have had it." And testify where it has been all the years, but you merely say it came out of the company files and by virtue of that fact it goes in.

If that were all, and your Honor virtually said in the course of the hearing that all he had to do was say that they came out of the company file, but I don't think your Honor will agree to that after we have finished our discussion.

He was the only witness, you will remember, to support those records as a part of the evidence in this case.

Now, your Honor, 28 U.S.C. requires two things. It requires that the records be, and I quote, "made in the regular course of business," and, two, it requires it was the regular [601] course of such business to make such memorandum or record at the time of such act, transaction or event, and within a reasonable time thereafter."

Now, when the Alabama Street plant was built, your Honor, according to your own statement, according to the record I have, you said, "Here is just a boy working around the plant"——

The Court: May I ask you a question?

Mr. Sellers: Yes, certainly you may.

The Court: Suppose a manufacturing company is building a plant. The plant is built. They establish their records. They take the blueprints and put them away in their files. Aren't the blueprints part of the official records?

Mr. Sellers: It is good to establish some occurrence, some event, some act, but what act, what occurrence or what event, your Honor? We have gone from a——

The Court: As far as I am concerned, those are

the blueprints and the drawings of the building in question.

Mr. Sellers: Who said that, your Honor? There has been no evidence of that..

The Court: Do they have to produce the fellow that drew the plans and have him testify?

Mr. Sellers: Your Honor, there is no competent testimony relating those drawings to that plant. The mere fact that on their face they happen to bear the same name does not [602] indicate anything. Let me finish, your Honor. Those drawings are not identified with that plant in 1931. Your Honor, when they put a new product on the market, a company comes out with a new model, before a model is produced and sold, it may have ten different prototypes and designs. There is not one iota of evidence to say, "We carefully searched our drawings and these are the only drawings we ever found or we ever made and have in our files relating to this plant."

The Court: But those drawings, when added to the actual testimony of the witness——

Mr. Sellers: What witness?

The Court: The first witness.

Mr. Sellers: The first witness knew nothing about the drawings, your Honor.

The Court: He described the plant itself.

Mr. Sellers: He said he worked there.

The Court: He described the plant itself and told how it operated.

Mr. Sellers: Yes, your Honor, and whether or not his evidence is entitled to weight——

The Court: His testimony and the drawings, if you add them, they dovetail.

Mr. Sellers: But, your Honor, you have no right, I respectfully submit, you have no right to dovetail these drawings unless they are properly before the court. What your Honor [603] is doing here is saying, "Well, these aren't before me properly, but notwithstanding I see them, and therefore I will combine them with the others."

The Court: No. That is what you are doing. I say they are before me properly.

Mr. Sellers: Well, your Honor, I mean if my argument be sound that is what you are doing. I do agree that you have admitted them, but I respectfully contend the fact that they have been admitted neither establishes their relevancy nor their competency.

I would like to go on, your Honor. I repeat that under 1732 it is necessary to show that those drawings, and I quote, were "made in the regular course of business." Now, who was it that testified that those drawings were made in the regular course of business?

The Court: Well, when you build a plant, don't you have to have a drawing?

Mr. Sellers: Who established that fact? You don't have to presume it, your Honor. It has to be established. What right do you have to presume that they were made in the regular course of business? It is a prerequisite of 1732 that they be made in the regular course of business, and there is not one iota of evidence that such is the case.

Mr. Bodinson testified that he couldn't establish that, and your Honor said he was a boy back at that period. Now, [604] who says they were made in the regular course of business? I don't say it. Counsel is in no position to say it. Mr. Bodinson disqualifies himself. Who says it?

For my money, your Honor, one of the essential ingredients of the entrance under 1732 is missing. I pointed out to your Honor at the time, and the record so shows, that it is quite a different thing to establish a policy of keeping records and to establish a policy of making records at the particular time. No one, certainly not Mr. Bodinson here, was able to take himself back to 1940.

The Court: It seems to me that when a business is established and records are kept, that the plans and specifications of the building which is built are a part of the official records of the business. I don't know how you can get around that.

Mr. Sellers: What do you mean by official records of the business, your Honor? I don't know that the corporation had any——

The Court: All right, scratch out official. The records of the business.

Mr. Sellers: Well, obviously, your Honor, under this rule you said they were admissible, but I am pointing out to you that I don't question they are part of the records, and I don't question but what if the proof would meet these two tests, that they are properly admissible. What I say is, your [605] Honor, you have no right to assume one simply because the one is established; and the fact of the

matter is that neither one is established, and I will tell you why.

Mr. Bodinson's testimony is only as to the company policy as of this time. He was there in 1940, and what the company policy was back in 1931, we have no evidence concerning at all.

Now, I ask your Honor, what right do you have to presume because the testimony shows that the policy is one thing today, and Mr. Bodinson stated he hadn't changed it, whether or not there were three other presidents before Mr. Bodinson who may have changed it. I don't know and you don't know.

The fact of the matter is in order to get this in, we have to presume, and I respectfully contend, your Honor, its admission is error.

Mr. Bodinson became president in 1940. The time in question is 1931. Mr. Bodinson couldn't testify to the company policy nor practice in 1940. You stated that he was just a boy painting around the plant. Are you going to let that boy tell us what the company policy back then was? Are you going to let him tell us that it was the company policy back at that time to make these drawings in the regular course of business?

The Court: Let's take Sears, Roebuck, for instance. Everybody that had anything to do with the original Sears, Roebuck [606] is dead and can't testify.

Mr. Sellers: All right.

The Court: Don't you think somebody can come

in and say, "This is our policy and has been our policy over the years"?

Mr. Sellers: Why didn't someone come in and testify to that, your Honor? Why didn't they? You ask me, and so now I ask you. They didn't. I am not saying someone couldn't have reviewed the records of the company, could not have gone back and could not have developed that sort of proof, but I say they didn't. I don't say just because they don't prove their case it is up to you or to me to presume they could have if they tried. I say the record doesn't support that evidence. What they could have done is pure speculation. The point is they didn't.

The Court: I don't want to interrupt, but I have got a criminal matter that I have to take care of. You have been working my reporter pretty hard. You have been talking for 30 minutes.

Mr. Sellers: Your Honor, I think this is critical, and I think you can see how critical it is.

The Court: I will let you continue after recess. We will take our recess now until 25 minutes after 3:00.

Mr. Sellers: How much more time do I have?

The Court: I understood you wanted your partner to say something. [607]

Mr. Sellers: Yes.

The Court: If you use up all the time, he is not going to get a chance.

Mr. Sellers: I respectfully point out, your Honor, 45 minutes is hardly adequate.

The Court: We will stand in recess.

(Recess.)

The Court: You may proceed.

Mr. Denny: Your Honor, I would like to prove to the court that even if those drawings are in evidence, it doesn't make any difference to the outcome of this case. The law on what it takes to anticipate a patent by proving prior public use is fairly well established. The leading case is the Barbed Wire patent case, 143 U.S. 275. There the patent in issue related to the well-known barbed wire.

One of the defenses was anticipation by prior public use. The defendants put in about six alleged anticipations, and as to one of them they brought in 24 witnesses who swore that they had seen that.

The Supreme Court in sustaining the validity of the patent had this to say:

"We have now to deal with certain unpatented devices claimed to be complete anticipation of this patent, the existence and use of which are proven only by oral testimony. In view of the [608] unsatisfactory character of such testimony arising from the forgetfulness of witnesses and their liability to mistakes, their proneness to recollect things the party calling them would have them recollect, aside from the temptation to actual perjury, courts have not only imposed upon defendants the burden of proving such devices, but have required that the proof shall be clear, satisfactory and beyond a reasonable doubt."

The Court: They use the words "beyond a reasonable doubt"?

Mr. Denny: "Beyond a reasonable doubt," your Honor.

The Court: What is the citation? I never heard that before.

Mr. Denny: 143 U.S. 275. Then again I am quoting:

"The doctrine was laid down by this court in Coffin vs. Ogden, 85 U.S. 18 Wall., 120, 124, that 'the burden of proof rests upon him,' the defendant, 'and every reasonable doubt should be received against him. If the thing were embryonic or inchoate; if it rested in speculation or experiment; if the process pursued for its development had failed to reach the point of consummation, it cannot avail to defeat a patent founded upon a discovery or invention which was completed, while in the other case there was only [609] progress, however near that progress may have approximated to the end in view.'"

Now, a more recent case I have found is from the District Court in the Northern District of California, decided in 1946, Food Machinery Corporation vs. the Pacific Can Company, et al., 70 U.S.P.Q. 474. There the patent related to a can handling machine. The defendant relied on oral testimony of prior use and also on a figure in a prior patent drawing for anticipation. The court had this to say, and I quote:

"The defense of anticipation rests upon two points: first, that Fig. 5 of the Chapman patent

drawing reveals the principle and, second, that in 1923 Chapman actually incorporated this principle in one or more machines. The evidence on this second point is too confused and uncertain in the court's opinion to support a claim of prior manufacture, that the oral testimony of witnesses speaking from memory only in respect to past transactions and old structures claimed to anticipate the patented device, physical evidence of which is not produced, is very unreliable and must be so clear and satisfactory as to convince a court beyond a reasonable doubt before it will be accepted as establishing anticipation, is a rule that has long been recognized by the courts," and cases are cited. [610]

It goes on, and I quote:

"If anticipation is to be found in drawings unaided by any text, the disclosure must be clear. Chapman's Fig. 5 makes no such clear disclosure. Defendant's interpretation is pure conjecture and insufficient to support the defense of anticipation."

Your Honor will remember Johnson in his patent described pre-mixing action in a weigh batcher for concrete. He spelled out in detail how the aggregates are to be brought together at the point of discharge and that the cement was to flow onto and into the aggregate.

Your Honor will remember the defendant's structures were shown by Exhibit 14, to which no significant exception is taken by the defendant.

Has the defense proven its case of anticipation?

I have this to say about the credibility of Murasko's and Cornett's testimony. First, I would

like to say that at the beginning of Murasko's testimony, defendant's drawing, Exhibit A, was placed before him and from that he began to testify. There was considerable voir dire after that, and it was agreed by the court since the drawing was not in evidence it should be removed from in front of him.

He then went on to testify and made a drawing entitled Defendant's Exhibit E. Now, this was a man who testified that at the time he was operating on this plant he had [611] nothing to do with drawings and was there only to operate the plant and see that it worked properly. He was a batch operator. I would say in my limited experience that is about one level above a common laborer. He is talking about something that he looked at some 23 to 25 years ago. I suggest that it is more than mere coincidence that the drawing he made resembles Defendant's Exhibit A.

I would ask the court to look closer at Defendant's Exhibit A:

During Murasko's testimony, he said that the walls surrounding the cement compartment terminated considerably short of the bottom of the aggregate compartment. That doesn't conform, but certainly conforms to defendant's case of anticipation, and it was rather convenient, I think, that Murasko would find that point of distinction over the other evidence placed into evidence by the defendant.

Murasko also stated in his testimony that the aggregate batcher that he operated was six inches from the ceiling and that the cement batcher was

six inches from the cement compartment and that the aggregate batcher was three feet from the ceiling. That is not corroborated by that drawing.

Murasko further said that to him there was no problem as to how the materials went into the mixer. In answer to a question of the court's, Murasko said there was a cement hopper inside of an aggregate hopper. You can't tell that [612] from defendant's Exhibit A.

In making his drawing, Murasko forgot all about a tunnel or baffle which was later put into that Exhibit E by the witness Cornett. At the time there was no such showing in Defendant's Exhibit E. Murasko testified that the aggregate completely surrounded the cement and intermingled with the cement.

Now, what about the witness Cornett? All of Cornett's testimony was given with Defendant's Exhibit E laid before him. I respectfully suggest that that leaves considerable doubt as to whether he was testifying from his recollection or from the drawings that he was being shown.

Further, Cornett said that the cement hit the aggregate three-quarters of the way up or down the chute, and that was left considerably in doubt.

Cornett also said that the operating mechanism for the cement batcher gate that he saw was affixed to the aggregate batcher. When he saw he had talked himself into a corner, he conveniently put some springs on that operating mechanism and maintained that the springs had no effect upon the operation of the cement batcher.

Then when Cornett was interrogated as to the details of the weigh batcher he was describing by his recollection, I think it is interesting to note that he could describe every part in detail shown in the blueprints later introduced [613] in evidence by the defendants. But when co-counsel interrogated him about the detail of the aggregate discharge gate, he couldn't recollect anything, and if your Honor will examine all the blueprints introduced in evidence by the defendants, you won't find a showing of the aggregate discharge gate or exactly how the aggregate hopper discharge was arranged.

What about the drawings themselves? I believe if you will look at the drawings you will see that in various details they don't conform to the testimony of either Murasko or Cornett, and that any attempt to make them conform to that testimony must rely on pure conjecture as to just how the apparatus was arranged.

Co-counsel has further pointed out that there is no testimony in the record to show that such a batcher as indicated by those drawings has ever been made or delivered or used publicly.

I think I have shown, your Honor, that in various details, and if we take everything at face value, three different types of weigh batchers have been testified to—two have been testified to and the third there has been an attempt made to put in by drawings, presumably as corroboration, but I submit there has been no corroboration, and particularly if you will observe the testimony as to the details of the discharge of the cement and aggregate

batcher, you will find that the drawings don't conform to what the witnesses would like us to believe existed some 23 or 25 years ago. In other words, there [614] has been no corroboration.

From the drawings, you can't tell what the aggregate hopper looked like and particularly you can't tell what its discharge looked like. If anything, it looks more like the structure shown in the Robb patent.

I respectfully submit that there is no dovetailing of the type earlier mentioned by your Honor.

There is also left the question if a batching apparatus as testified to was used at that time, whether or not that use was experimental. The batch operators wouldn't know if it was experimental or not. Only its designer and fabricator could testify to what was in his mind at that time and whether it was satisfactory or not. But I would suggest that the defendants have shown there was some experimentation because the drawing you are looking at, Defendant's Exhibit A, has a date——

The Court: December 4, 1931.

Mr. Denny: December 4, 1931. Defendants also put into evidence their Exhibit H, and I presume that they intended it to show some relationship to the alleged anticipating structure they were talking about. It shows as late as April 13, 1933, changes were being made to that aggregate batcher. If these drawings are to be believed and are properly in evidence, I suggest that they as well prove that this structure was being used experimentally. Changes were made at least two years [615] after the date

alleged by defendants, and for that matter changes may have been made an additional two years later and the batcher would not be good as an anticipation.

If your Honor will also again refer to Defendant's Exhibits A and E, you will see that there is here shown what the defense identified as a tunnel which contained the operating mechanism for the cement batcher discharge gate, pointing to Exhibit A. This was also placed into Defendant's Exhibit E by the witness Cornett.

I point out it is rather interesting that the tunnel ended upon the same side as the drawing here, and that the witness said in his conclusion the aggregate still completely surrounded the cement.

Before you decide, your Honor, whether or not the aggregate in this structure could have completely surrounded the cement or not, I would like to read a portion of defendant's pretrial memorandum, page 14——

The Court: Just a minute. I am going to give you until 4:00 o'clock. You have got five minutes left.

Mr. Denny: I will be done if you will let me read it.

The Court: Go ahead and read it. I don't care how you use the five minutes, but that is all the time you are going to get. You have had over an hour.

Mr. Denny: I will read from defendant's pretrial memorandum as follows: [616]

"Defendant likewise will establish at the trial

that this claim has never been infringed. Defendant does not and never has built a cement batching apparatus wherein the discharge means are concentrically disposed in serving to produce commingling of the cement and coarser aggregate. Defendant's cementing apparatus consists of three hoppers, positioned alongside of each other, the central hopper containing cement and being suspended from one scale, the other two hoppers containing aggregate material and being suspended from a second scale, in much the same manner as illustrated in the Robb patent No. 1,750,244. There is no concentric discharge. In this respect reference is made to Fig. 5 of the Johnson patent which shows a concentric discharge and shows what this language utilized in the claim means. It will be noted that the cement discharge is completely surrounded by the aggregate materials so that the cement discharge and aggregate discharge truly concentric. Defendant does not use this arrangement. In defendant's arrangement the aggregate flows along one stream, then a stream of cement, then a second stream of aggregate: There is no concentric discharge [617] and the functioning of defendant's device is the same as the prior art."

Well, your Honor, I submit that the evidence proved that the defendant was not right in his position here on the question of infringement, but if a device such as alleged here does not infringe, it does not anticipate. There are cases on that. Here if, because the aggregate does not surround the cement so as to produce a concentric discharge,

I would submit it couldn't be an anticipation on the basis of what is shown here alone.

Thank you, your Honor.

The Court: Before we proceed, Mr. Lyon, we have a criminal matter I would like to dispose of.

(Other court matters were taken up.)

The Court: Mr. Lyon, I will give you 30 minutes. The only thing I am interested in is the question of the plant in San Francisco and the admissibility of the blueprints.

Mr. Lyon: Your Honor, please, there is a very serious question whether or not there is any invention in this patent and I hate to confine myself to one defense at this time because I believe the other defenses are equally as good.

The only testimony in the record which would have any bearing whatsoever on this invention, as your Honor so aptly tagged it, when Mr. Wright was on the stand, was merely speculation. Never any test run to show that this plant did [618] what it is claimed to have done by the plaintiff.

The testimony of their own witness, Mr. Pearman, said that none of these intermingling or commingling things took place.

The testimony of Mr. Wisniski, who has been an expert in this field for many, many years and held very high and responsible jobs, said that this was all a bunch of nonsense, that this commingling or intermingling, or whatever happened, produced no useful result whatsoever, that it was only when you got the intermixing in the hopper that was placed

underneath that you got any useful action whatsoever.

I hate to confine myself to this one particular defense, and with your Honor's permission I would like to go into the others.

The Court: Go ahead and use the time any way you want.

Mr. Lyon: I will take up the question of prior use first, because that seems to be the one your Honor is most interested in.

The Court: You will admit, won't you, if there is any prior use, the patent is no good?

Mr. Lyon: That is correct.

The Court: Doesn't that end the case?

Mr. Lyon: As far as we are concerned, barring the question of their going up on appeal, and if they go up on appeal, I would like to have a decision that there is no invention on [619] this patent.

Mr. Bodinson, who is the president of the Bode Rock Company, testified that it was the policy of this company to make drawings of every construction they ever made. He testified it was the policy of this company to keep these drawings in a certain specified file as per job.

The plaintiff has made the argument that these were not kept in the regular course of business. I have a lot of difficulty understanding just precisely what we are talking about. Section 1732 specifies this.

Such documents are admissible if made in the regular course of business.

I don't think there is any question in this case that they were made in the regular course of business. That is the only testimony before this court. There is no other testimony whatsoever would suggest in any way that these have been——

The Court: Well, the question here is, supposing an engineering firm or a draftsman or an architect draws plans for a building. The building is built and then the plans are given over to the owner of the building and the owner of the building files them in his records. Who made the plans? They were made in the usual course of business as far as the architect was concerned, but were they also made in the regular course of business as far as the owner is concerned?

Mr. Lyon: Well, in this instance, your Honor, you will [620] remember the Bodison Gravel Company were the people who manufactured the plant and it was their record, not the owner of the plant, but the man who built the plant.

The Court: The record of the builder we have got here.

Mr. Lyon: That is correct, sir, of what his business transactions were. I don't see what other way a construction corporation can keep any records of anything that it does. I mean if those aren't records kept in the regular course of business, a construction organization doesn't have any records in the ordinary course of business.

There is one further point, your Honor, the plaintiff didn't touch on at all, the question of these job orders.

Mr. Bodinson testified in his organization as soon as the plans are made up they send out a job order to the department who is going to do the specific work.

The Court: Yes, I know, but I don't think the plaintiff is contesting very seriously that this plant wasn't built when you say it was built. They are contesting that the plant didn't contain what you said it contained. The job order is only piecemeal. It doesn't show the inner workings of the plant. The job order goes to establish the fact of when the building was built or the plant was built. It doesn't indicate what was inside the plant.

Mr. Lyon: I am convinced the plant was built in 1931. I want to make certain you are. [621]

The Court: I am, also. I have no question of that.

Mr. Lyon: As to the construction of this plant we have the testimony of Mr. Murasko and Mr. Cornett. Mr. Cornett was busy operating this plant from 1933 until 1947. This is not the type of case the plaintiff tries to make out it was, where the testimony is, well, on the 23rd of August, 1934, I saw one of these. This isn't that type of situation. This is where a man day in and day out for 14 years worked at the plant. There is no question but what he was there. There is no evidence to the contrary at all.

Mr. Murasko was there from 1931 to 1942. That is 11 years he worked on this same plant. He ran it every day, or if he didn't run it, he was right

there while the other man was running it. No question but what the plant was there and these gentlemen were there for a minimum period of 11 years. This is not the type of situation they are talking about in the barbed wire case where they bring in a cattleman who says, "Yes, in October 1923, I saw one of those on a fence."

That is not the kind of testimony we have here. We have testimony from men who were with this job for 10 or 15 years every day, and they saw this plant, operated this plant, ran it. They testified as to how that plant was constructed.

They testified there was a hopper for the aggregate material. There was a second hopper for the cement material, [622] suspended within this hopper.

Each hopper was suspended from separate scales.

I might remind your Honor that these claims, as far as claim 1 of the patent goes, it doesn't describe any of these details. There is nothing in that claim or in that patent that has anything to do with the formation of the discharge gate or any of that material. There was no question whatsoever that this structure contained a hopper within a hopper, each suspended from separate scales. That is all that is defined by claim 1.

The plaintiff has tried in many instances to try to build some inconsistency in the statements of these men. Remember Mr. Cornett was the white-haired gentleman who obviously was scared half to death when he was on the stand for fear he would do something, I don't know what. He was

a gentleman with modest education, a grammar school education, your Honor. He had been a plant operator all his life. He sat there and Mr. Sellers cross-examined him. I don't know how many minutes and hours went by while he kept asking him the same questions over and over and over again. Remember the trip he testified he took and Mr. Sellers would say, "Did you say that was in 1937?" And he would say, "No, correction, that was in 1936."

Then he would come back an hour later and say, "You said that was in 1937, didn't you?" And the witness would [623] say, "No, it was in 1936."

We had repeated efforts to try to break the man's story, to try to build some inconsistency into his story, none of which were successful.

In my mind there can't be any possible doubt that plant was there, it was there in 1931, and it was constructed with a hopper within a hopper suspended from separate scales. The witnesses have so testified.

Mr. Bodinson testified in 1946 or '47 when he was up there, it was so constructed. He could not testify how it was constructed in 1931. There is nothing to show the plant was changed in the whole course of that time. There were, of course, parts that wear out on a plant of this type and there was testimony of the defendant's other witnesses there might be replacement of parts.

But I believe the witnesses, all three of them, their testimony as to the construction of the plant leaves beyond any question that the vital elements

of the claim were in it, the question of a hopper within a hopper, each suspended from separate scales, and that is all that claim calls for, your Honor.

So we have this situation. We do not have an individual witness trying to testify as to an individual so-called prior use. We have Mr. Murasko, who testified that he operated this plant from 1931 to 1942. He testified as to the manner [624] in which the plant was constructed.

We have his testimony supported by that of a second witness, Mr. Cornett, who testified that he was working on that plant daily from 1933 until 1947.

We have that testimony corroborated by the drawings which show the construction of the device and show a hopper within a hopper construction. Plaintiff's Exhibit A shows that construction, your Honor, shows a hopper disposed within a hopper.

The central drawing, right there shows just exactly that construction, just exactly in the manner it is shown in the charts which the plaintiff had prepared. It shows the accused structure.

The more difficult question in this case—well, not more difficult, but one which I think also needs some consideration, is the fact that this patent does not purport to claim as its invention a cement batching apparatus. I call your Honor's attention to the language of the first paragraph of the patent:

"Though the invention is susceptible of use in any connection where a number of different kinds of aggregate materials are being proportioned * * *"

The patentee in that statement says, "I do not intend, I don't want this patent construed as limited to cement batching apparatus. This invention is suspectible of use in any type [625] of batching apparatus."

Claim 1 of the patent does not confine the definition of the invention to a batching apparatus—I mean to a cement batching apparatus. Pardon me. It says, "in a batching apparatus of the class described * * *"

The patent endeavors to cover any and all forms of batching apparatus irrespective of whether it has to do with the particular cement problem or not. It is an attempt on the part of a patentee to monopolize this concept of placing one hopper within another hopper suspended from separate scales, irrespective of where it is used.

The Court of Appeals in the Ninth Circuit has, I think very aptly, disposed of this type of situation, where a patentee has claimed more than his invention, where he has tried to write a claim which is broader than what he has contributed to the art, and that is in Winslow vs. Smith, 108 U.S.P.Q. 25, where the Court of Appeals followed the decision of the Supreme Court in Graver vs. Linde Air Products.

You will recall the Graver vs. Linde Air Products case. That was a decision where in the District Court it was held that the patent was invalid because the claim called for silicates, and it was established at the trial only nine metallic silicates would operate and others would not.

The Court of Appeals reversed the District Court and said, "There is nothing in the patent that shows he intended [626] the word silicates as used in his claim as covering more than those that would work."

When the case went to the Supreme Court, the Supreme Court turned around and reversed the Court of Appeals.

"The court cannot rewrite or expand the claims of a patent. If a man overclaims an invention intentionally or unintentionally, it is the duty of the court to strike that claim down."

That was precisely the action taken in Winslow vs. Smith.

Your Honor, in any patent case the first question that must be answered is the question of whether there was an invention made. We can talk about everything else all day, but that is the first question you must decide.

When Mr. Sellers was presenting his case through the witness Wright, your Honor asked him, "What was the invention?"

Mr. Sellers' comment was that it was the concept of surrounding the cement with a shaft of aggregate.

Your Honor will recall the earlier Johnson patent 1,687,499. This patent is just as good prior art against the Johnson patent in suit as anybody else's.

This patent states, and this is what Johnson said some nine years earlier:

"Stated more specifically the invention aims [627] to provide a large hopper in which the aggregate

for the bath is stored and a smaller cement hopper having an outlet opening within said large hopper, the opening being closed by the aggregate initially fed into the large hopper whereby the cement flowing from the cement hopper will be surrounded by a layer of the aggregate and thereby held out of contact with the inner surface of the large hopper."

That is the invention of Johnson patent No. 1,687,499, not the patent in suit, yet when Mr. Sellers is asked, "What is the invention in this patent," he comes back to this very same paragraph and says this is also the invention of the patent in suit.

Your Honor, he was issued one patent covering that. He can't have a second. This one has expired. It is merely an attempt to monopolize again that which he had gotten a patent on earlier.

The only thing Mr. Sellers could point to as new was the concept of surrounding the cement with the aggregate. His prior patent taught that some nine years before. There is no invention involved in this at all, your Honor.

When you asked the witness Mr. Wright what benefits he received out of this patent structure, he said, "Well, you get an intermingling."

I asked him myself, "Do you get an intermingling if [628] your discharges aren't specifically related to one another?"

He said, "No."

I asked the witness Pearman, "With the construction of a hopper within a hopper, do you get any kind of a"—I misspoke myself. I didn't mean

Mr. Pearman. I meant Mr. Pinne, I believe it was, whatever the name was.

Mr. Sellers: Pinne.

Mr. Lyon: I asked him, "What is it that gets this result, what is it that is supposedly better about this?"

He said, "If one discharge is concentric with the other discharge and if it is raised above it, then you get it, but if you don't have that relationship, then you don't get any of this so-called intermingling or commingling."

This relationship is not defined in claim 1. There is nothing in there about the discharge being concentric. There is nothing in there about one of them being positioned anywhere with respect to the other.

So that the whole plaintiff's case has been directed to the concept of obtaining this intermingling or commingling of the cement with the aggregate and yet that claim, claim 1, does not even mention it. There is nothing in that.

Your Honor is not permitted by the law to read into a claim any kind of a limit. You are not permitted by the statute or by the decisions of the Supreme Court to vary one bit the language that is in those claims. [629]

I think the best example of what is meant by that is presented by our Ninth Circuit Court of Appeals in D. & H. Electric Co. vs. M. Stevens Manufacturing Company, in 108 U.S.P.Q. 27. The claim in suit had reference to two items, that they were substantially at right angles to one another. The defendant in relating the same two items used

from 85 to 89 degrees. 90 degrees is right angles. They used 86.

The Court of Appeals said that is not substantially right angles. The claim says it has to be substantially right angles and that is not. It is a degree off. So there is no infringement of the claim.

I think the same situation is pertinent at the present time. This claim relates to a hopper within a hopper suspended from separate scales and nothing else. The claim does not define an invention, if there is one at all, your Honor.

We had a lot of conflicting testimony here as to whether or not there was any definite commingling or intermingling of the two ingredients.

When I got around to ask Mr. Wright on what he based his opinion, he voiced complete ignorance of the basic laws of physics as to free falling bodies. I couldn't intelligently interrogate the man. He didn't know whether heavier bodies fell faster or slower than light bodies. He did not know whether or not something made something else move sideways when it [630] was falling. Mr. Wright's testimony was sheer speculation, your Honor. The plaintiff never once in this case tried to establish any test that was ever taken to substantiate what was supposed to have been the result obtained.

Mr. Wisniski, who has been in the business since 1935, has held high important positions with the federal government, has been in cement work since he was out of college, testified you cannot anticipate what goes on in one of these things, that you have

got to run a test. He said, without running a test, I cannot tell you whether there is any intermingling or commingling or anything else.

Mr. Roger Pine was the draftsman who made the drawings. When I asked him on the stand, he said, "I can't tell you what that gate looks like, because when I got down under that plant, I couldn't see it."

In other words, your Honor, there is nothing here that would establish any of the so-called new, startling or unusual results which the plaintiff claims. There isn't one bit of proof to establish any one of them. It was merely speculation of witnesses who were testifying as paid experts for the plaintiff. When I asked the witness on what theory, he divorced himself from any knowledge of any of the theories by which this could result.

Now, after your Honor has covered the question of whether or not there is an invention, the second question that [631] must be answered in a patent case is whether or not the claimed device is that invention. I believe I have previously discussed that. The test has been fully set forth in the A. & P. case as to what constitutes a patentable invention. I have cited in my pretrial memorandum all the latest cases since that time. Your Honor, is probably familiar with some of them; as a matter of fact, probably familiar with all of them.

The Court: May I ask you a question?

Mr. Lyon: Yes, sir.

The Court: If I file a claim for a patent for

something that is already in the public domain, do I get a valid patent?

Mr. Lyon: No, sir. The Patent Office might issue it.

The Court: The patent is invalid; isn't it?

Mr. Lyon: That is correct, sir.

The Court: In this case if I find that the plant in San Francisco was built as testified to by the witnesses, that it is a replica of the plant that the plaintiff claims a patent on, isn't the patent invalid?

Mr. Lyon: That is correct, sir. That fully disposes of the validity of the patent. But I also suggest there is a second question, and that is the lack of invention in the first instance.

The Court: Well, the last time I tried a patent case and held it lacked invention, I was reversed, so I want to make sure I know about what is invention. I followed the [632] Supreme Court, but the Circuit said I didn't follow it right.

Mr. Lyon: Well, let me refresh your memory once again. Remember the Kwikset Lock case vs. Hilgren.

The Court: Yes; I remember that.

Mr. Lyon: Your Honor, this is one of the most difficult fields of patent law, to ascertain when and when not an invention is involved, and a combination of mechanical elements. The Supreme Court has never, nor has any other text writer or court, ever evolved a definition that would help define invention. They have evolved a number of definitions if you feel there is no invention.

The one that they seem to rely upon most heavily now is probably summarized by the comment of the Ninth Circuit Court of Apeals. If your Honor can put the elements of this claim together and have two plus two equal five, you have got invention, but if two plus two comes out to equal four, you have got merely an old, exhausted combination of elements. In other words, let us put all these individual elements together——

The Court: Mr. Lyon, at the time we were trying this case and at the time you were introducing your testimony as to the plant that was built in San Francisco, I said if I believe the testimony of this witness, here was a plant built practically identical to the plant you claim to have a patent on—I was talking to the plaintiff's attorney. I haven't [633] changed my mind in regard to that manner.

Then again I said it seems to me, Mr. Sellers, if I am convinced that here was a plant that was built in San Francisco in 1931 practically the same as the plant described in your patent, which was filed in 1937, if I am convinced that there was prior use prior to the obtaining or the filing of this patent, it would seem it would be very unjust at this date to award damages on a patent that I am convinced was illegal and void from the very beginning.

That was my opinion then when I was hearing the witness, and it is still my opinion. It seems to me that the claims of the patent can be read upon the plant that was built in San Francisco.

Mr. Lyon: I agree with your Honor completely. There is no question in my mind.

The Court: So, I don't think it is necessary to extend this matter any further. I am going to find that the plant in San Francisco was built prior to the date of the application for the patent in suit, and that the claims of the patent in suit read upon the claims of the plant in San Francisco, and because of that the patent is illegal and void.

Mr. Sellers: May I ask, your Honor, is your Honor basing that solely upon the testimony of the witnesses Murasko and Cornett, or are you——

The Court: I am basing it upon the testimony of all the [634] witnesses, all the evidence in the case, not just one witness.

Mr. Sellers: May I ask, are you including in that the evidence produced by Mr. Bodinson under the business records?

The Court: I am including all of the evidence that was introduced, all of it.

Mr. Sellers: Thank you, your Honor.

The Court: I am satisfied that my ruling is correct relative to the introduction of the drawings. You have a perfect right to test my judgment in that case. I have no objection, if you want to appeal. It is perfectly all right with me. If the Circuit wants to reverse, it is perfectly all right with me.

Also, as I indicated in my statement the other day, I will not award costs or attorney's fees to either side. Each side will bear their own costs. Now, I may say that that only applies to this trial. If there is an appeal and a reversal and it comes

back, then I will consider the question of awarding attorneys' fees and costs on a new trial and the appeal, not upon the old trial.

As far as I am concerned, from this time on there will be no costs and no attorney's fees, but I have an open mind if anything happens in the future. You understand, do you?

So if there is an appeal and if counsel feels that —and I am satisfied he feels that an appeal should be taken if [635] his client will agree an appeal should be taken, and there is a reversal and the case comes back, then I will consider costs and attorneys' fees relative to the new litigation from this time onward. But my order relative to costs and attorneys' fees stops with the filing of the judgment.

Court will stand in recess.

Mr. Sellers: Your Honor, may I ask before we stop, does that apply to claim 5, too? You remember there is not one iota of evidence relating to anticipation of claim 5. Claim 1, yes; but the plant in San Francisco was never alleged to have circular water means.

The Court: I am satisfied it applies to the entire suit.

Now, Mr. Lyon, will you prepare the findings of fact according to the rules?

Mr. Lyon: Yes, sir.

The Court: All right. Court will stand in recess until 10:00 o'clock tomorrow morning.

[Endorsed]: Filed June 28, 1956. [636]

[Title of District Court and Cause.]

CERTIFICATE BY CLERK

I, John A. Childress, Clerk of the United States District Court for the Southern District of California, do hereby certify that the foregoing pages numbered 1 to 97, inclusive, contain the original

Complaint;

Answer;

Plaintiff's Pre-trial Memorandum;

Motion of Attorneys for Defendant to Withdraw from the Case;

Affidavit of H. Calvin White;

Order re Motion of Attorneys for Defendant to Withdraw from Case;

Notice Under Title 35 U.S.C. 282;

Notice of Hearing;

Plaintiff's Memorandum of Points and Authorities in Opposition to Defendant's Motion for Continuance;

Affidavit in Support of Memorandum of Points and Authorities in Opposition to Defendant's Motion for Continuance;

Defendant's Pretrial Memorandum;

Reply to Defendant's Pretrial Memorandum;

Findings of Fact, Conclusions of Law and Judgment;

Notice of Appeal;

Statement of Points Upon Which Plaintiff Appellant Intends to Rely;

Plaintiff's Designation of Contents of Record on Appeal;

Order for Extension of Time to Docket Record on Appeal;

Order by Stipulation that the Reporter's Transcript of Proceedings May Be Corrected by Hand-Written Insertions;

which, together with 5 volumes of reporter's transcript of proceedings and plaintiff's exhibits 1 to 20, inclusive, and defendant's exhibits A to Q, inclusive, except C & D which were withdrawn.

I further certify that my fees for preparing the foregoing record amount to $2.00, which sum has been paid by appellants.

Witness my hand and seal of the said District Court this 30th day of August, 1956.

[Seal] JOHN A. CHILDRESS,
Clerk;

By /s/ CHARLES E. JONES,
Deputy.

[Endorsed]: No. 15249. United States Court of Appeals for the Ninth Circuit. C. S. Johnson Company, a corporation, Appellant, vs. Merle W. Stromberg, doing business as California Batching Equipment Co., Appellee. Transcript of Record. Appeal from the United States District Court for the Southern District of California, Central Division.

Filed August 31, 1956.

/s/ PAUL P. O'BRIEN,
Clerk of the United States Court of Appeals for the Ninth Circuit.